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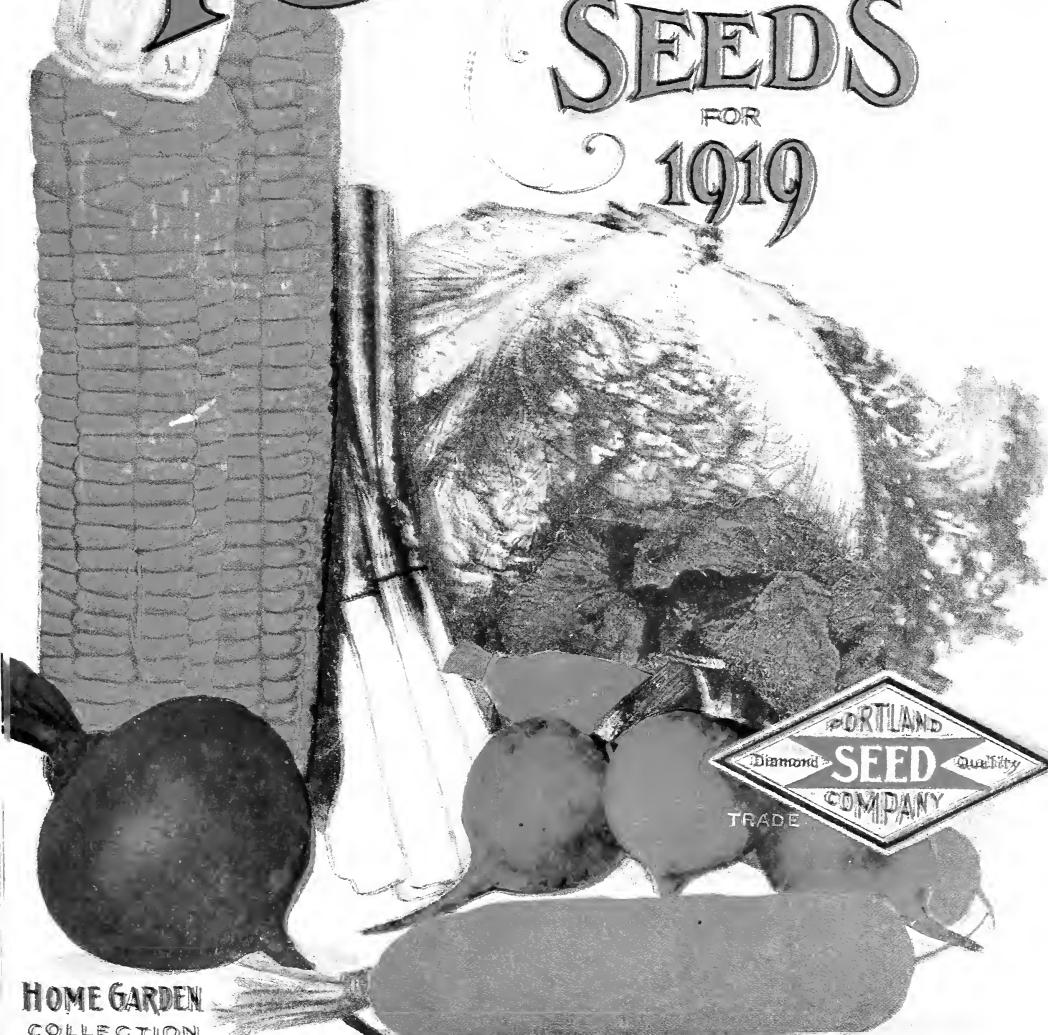
AUG 7 1920

U.S. Department of Agriculture

# PORTLAND SEED CO.

DIAMOND  
QUALITY  
TESTED

SEEDS  
FOR  
1919

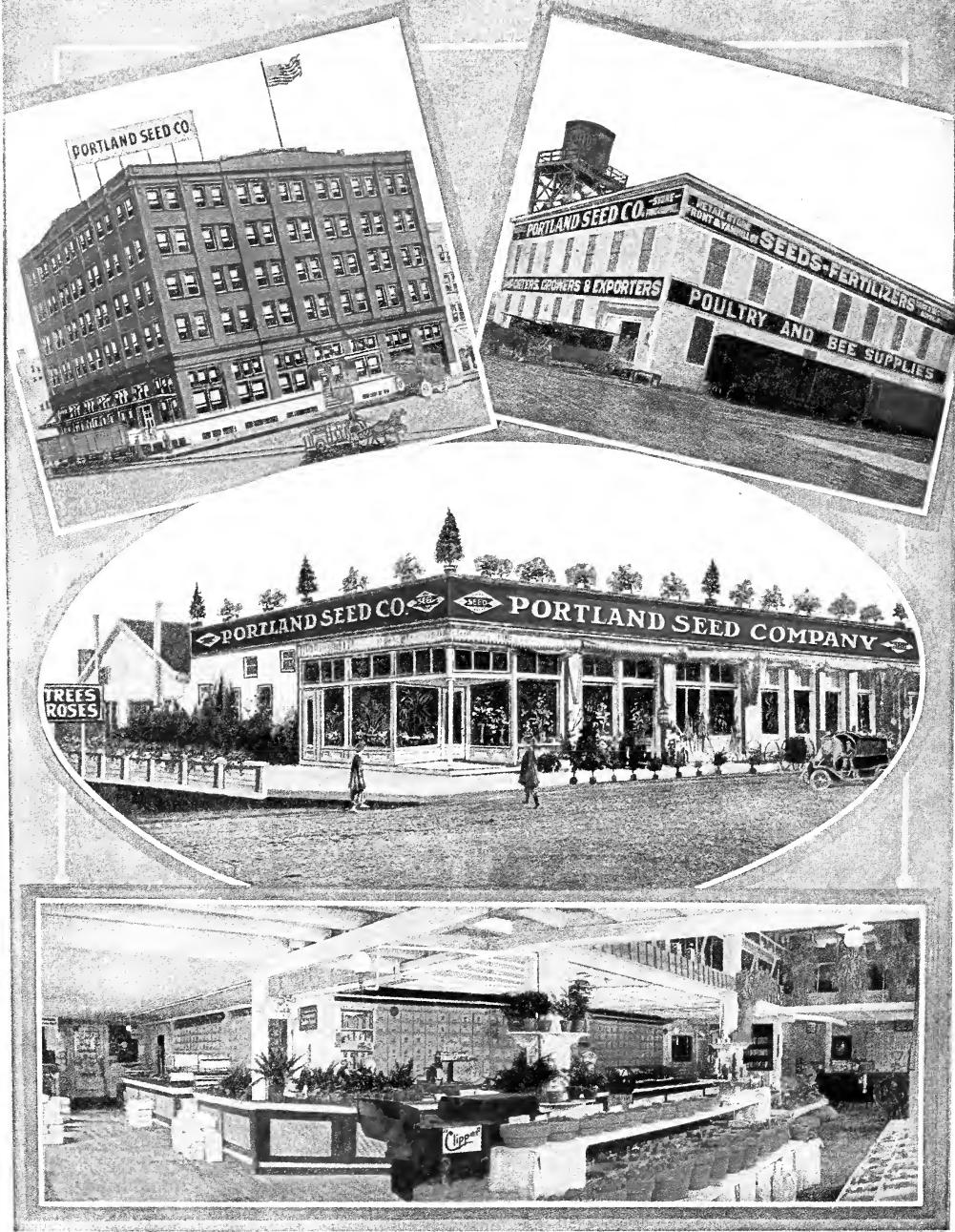


GOLDEN WEST CORN  
MARKET GARDENER BEET

NEW CORELESS CARROT  
WHITE BUNCHING ONION

CRISPETTE LETTUCE  
CRIMSON GIANT RADISH

GRATS., 60¢



**SERVICE**—In our various departments from fifty to one hundred competent men and women are actively engaged in serving our customers. Among these are practical experts, specially fitted by training and experience to confer with you on any subject pertaining to our business. Their suggestions or recommendations incur no obligation on your part and may save you needless expense and disappointment. You should take advantage of this service.

**WHAT OUR DIAMOND TRADE MARK STANDS FOR.** By reason of our business standing and the experience gained by a quarter century of success in serving the growers of the Northwest, we have established trade relations with the world's best producers and sources of supply. Only by such connections is it possible, in the seed trade, to obtain the select true stocks—the best of the season's production; and when you see our DIAMOND Trade Mark on your packet of seeds or item of merchandise you can feel that it is a mark of real quality—THE BEST OBTAINABLE.

**OWNING OUR GROUNDS AND BUILDINGS** in the business center of Portland—with our house tracks easily accessible to all railroads—places us in the most advantageous position to render prompt, efficient and economical service.



**PORLAND, OREGON**

# PORLAND SEED COMPANY'S COMPLETE SEED ANNUAL



FOR 1919

**D**ORE than ever before we are called upon for increased production of foods for our home supply, our armies and our Allies. Greater care and thought should therefore be given to the selection of varieties for their food value and productiveness.

**The Improved Varieties** and select strains we offer have proven profitable to the growers of the Northwest and will give you the greatest satisfaction for either home or commercial planting. We do not speculate in novelties but list only standard sorts of known merit.

**Prices**—It is no longer a question of prices in the seed trade but the problem is to secure reliable stock. This we will continue to supply as long as available, at the lowest prices consistent with quality but the prices will necessarily vary with the supply and demand.

**Home Gardens**—Carefully plan and plant your home garden, choosing varieties that are known for their food value and productiveness. Systematically arrange the rotation to give you the greatest yield throughout the season without impoverishing your soil. A small space will thus produce a big supply of delicious fresh vegetables of a quality that you can seldom buy and will greatly reduce your living expenses.

**Poultry and Bees**—Everyone having a yard where poultry can be kept should raise chickens to keep up the meat supply. **Bees** are easily cared for, are necessary for the pollination of fruit, and honey is the most delicious and satisfactory substitute for sugar. *Keep Bees.*

**We Can Help You**—Our suggestions may save you much unnecessary expense and loss of time and enable you to secure better results—a service that is free to you.

PORTLAND SEED COMPANY

## WHEN AND HOW TO ORDER

**S**END in your combined orders for seeds, plants, supplies, etc., at once. We are prepared to fill orders as soon as this Catalog reaches you, and if you do not want all sent now we will send part now and the balance later. The advantage of this is that your order is entered and filled or stock reserved so the complete order, or any part, can be sent upon notice without delay. If you want part or all of your order held, state it distinctly with date when shipment is to be made. All orders for potatoes, plants, and other perishable goods are carefully booked on receipt, and filled in rotation as soon as weather permits. If shipped early, they are at buyer's risk.

**USE OUR ORDER BLANKS**—Fill out the spaces, giving postoffice and shipping point. It is best not to write letters on the same sheet as your order. **Do not forget to sign your name.**

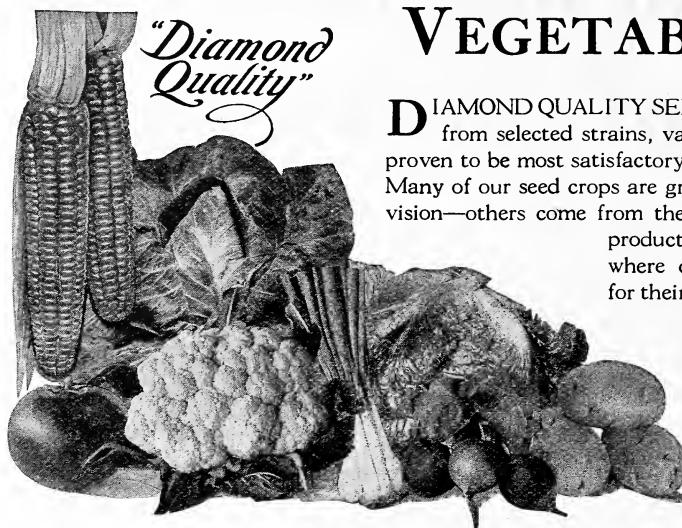
**SEEDS BY MAIL** are postpaid in lots of one pound or less of a variety—unless otherwise stated. See **parcel post rates** for larger lots.

**LARGE ORDERS**—Any dealer, market gardener, institution or individual wishing seed in large quantities, is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. **A letter of inquiry may save you dollars** if you want to buy in quantity.

**USE MONEY-ORDERS, POSTOFFICE OR EXPRESS, Bank Drafts or Registered Letters.** DO NOT send personal checks, as your order may be delayed pending their collection or identification. Stamps will be accepted on small orders.

**BE SURE TO ORDER EARLY—BEFORE STOCKS ARE DEPLETED.**

**NOTE**—We use every precaution in procuring fresh, pure and reliable seeds, etc., but we, in common with other responsible seed houses, sell our goods subject to the following disclaimer, it being that adopted by the American Seed Trade Association, i. e.:—We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs, nursery stock, roots or plants sent out, and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once.—**PORTLAND SEED COMPANY.**



# VEGETABLE SEEDS

**D**IAMOND QUALITY SEEDS are grown especially for us from selected strains, varieties that years of trial have proven to be most satisfactory for home and market gardens. Many of our seed crops are grown under our personal supervision—others come from the world's great centers of seed production of Europe and America where conditions are most favorable for their perfect development.



## General Notes on Planting and Culture

**W**E have marked those varieties that mature early with this little Diamond, our trade-mark. This will aid you in the selections for your home garden.

If you live in Northwestern Oregon or Washington you will have better success with your garden by planting these early maturing varieties after the Spring weather is settled and the ground warm, than if you planted very early, as many seeds will not give the best results in the cold damp of the early Spring, and even if they live, the plants may be stunted and not grow. These suggestions are only general, as you will note that many special sorts can be planted very early.

If you live in the Willamette Valley or Southern Oregon you can plant almost anything as early as the condition of the soil will permit.

**Do not work the soil when it is wet**, as this has a tendency to make it lump and bake and may put it in such shape that nothing can thrive in it. Wait until it is just dry enough to crumble away nicely when turned over, and if you will press the dirt firmly down on the seeds, getting right in the row and tramping the soil down with your feet—they will germinate quickly even in comparatively dry soil. Any extra work in carefully preparing the soil will more than repay you in the increased results, and always remember that constant and thorough cultivation is almost equal to water and fertilizer both, and will insure a good crop even in a dry season, and on ordinary soil.

New land must be thoroughly broken up and cultivated in order to kill out the wild nature, as new ground in the wooded sections of the Pacific Coast rarely produces bountiful crops the first few seasons without careful culture, fertilizing and rotation.

**It pays to fertilize** and cultivate to supply the necessary plant foods to the growing crops.

**Fertilizers are not an expense** but a profitable investment sure to give big returns if correctly applied and the cultivation and care of the crop is given proper attention.

**Plan your plantings** and keep a garden book or record of some sort, for by so doing you will get the utmost pleasure and profit from your garden and as the seasons pass you will find this record an invaluable aid and reference work. For if you keep a record you will soon learn what varieties are best for your requirements and to know your favorites, and when buying seeds or plants you will know just what to order.

If you are in doubt about what you should do, or want any special information, be sure to write to us. We will be pleased to give your inquiries our careful attention, and advise you to the full extent of our knowledge.

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**BOOKS** AN UP-TO-DATE REFERENCE BOOK will save the beginner many times its cost and will suggest improved methods to the experienced. SEE LIST OF STANDARD REFERENCE AND TEXT BOOKS



# DIAMOND QUALITY SEEDS

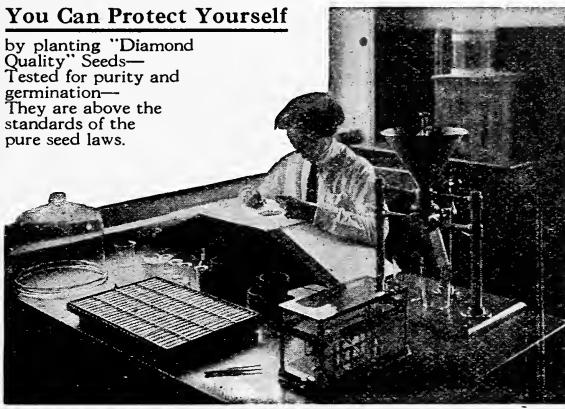
## Are Tested Seeds

To further guard the interests of our customers and maintain our standard of excellence, we have installed a modern seed laboratory equipped as recommended by the U. S. Dept. of Agriculture, placing in charge a certified seed analyst. It is here that final tests and inspections are made, and only those seeds that are above the standards are offered to the public, and bear our Diamond Trade Mark—the mark of quality that stamps them as the best obtainable.

We are the only Seed Company maintaining a seed laboratory in Oregon

### You Can Protect Yourself

by planting "Diamond Quality" Seeds—  
Tested for purity and  
germination—  
They are above the  
standards of the  
pure seed laws.



### REFERENCE TABLES

#### Quantity of Seeds to produce a given number of plants and to sow an acre

	Quantity per acre.	Grass—Cont'd	Quantity per acre.	WEIGHTS OF VARIOUS ARTICLES
		Timothy.....	10 to 15 lbs.	PER BUSHEL
Artichoke, 1 oz. to 500 plants.....	6 oz.	Orchard, Perennial Rye.....	1 to 2 bu.	Artichokes..... 60 lbs
Artichokes—White French.....	8 bu.	Wood Meadow.....	1 bu.	Barley..... 48 lbs
Asparagus, 1 oz. to 800 plants.....	1 lb.	Horseradish Roots.....	15,000 to 25,000	Beans..... 60 lbs
Asparagus Roots.....	7500	Kale, 1 oz. to 2,000 plants.....	4 oz.	Buckwheat..... 48 lbs
Barley.....	2 to 2½ bu.	Kaffir Corn, in drills.....	6 to 10 lbs.	Blue Grass.....
Beans, dwarf, 1 lb. to 100 ft. of drill.....	1 bu.	Kohl Rabi, 1 oz. to 2,000 plants.....	4 oz.	Kentucky..... 14 lbs.
Pole, 1 lb. to 100 hills.....	½ bu.	Leek, 1 oz. to 100 ft. of drill.....	4 lbs.	English..... 24 lbs.
Beet, Garden, 1 oz. to 100 ft. drill 6 to 7 lbs.		Lettuce, 1 oz. to 150 ft. of drill.....	3 lbs.	Canary Seed..... 60 lbs.
Mangel, 1 oz. to 100 ft. of drill.....	5 lbs.	Mushroom Spawn..... brick to 10 sq. ft.	20 lbs.	Cheat..... 34 lbs.
Broccoli, 1 oz. to 2,000 plants.....	4 oz.	Millet—For Seed.....	20 lbs.	Clover Seed..... 60 lbs.
Brussel Sprouts, 1 oz. to 2000 plants.....	4 oz.	For Hay.....	30 lbs.	Corn, Shelled..... 56 lbs.
Broom Corn, in Drills.....	15 lbs.	Melon, Musk, 2 oz. to 100 hills.....	2 to 3 lbs.	Charcoal..... 22 lbs.
Buckwheat.....	½ to 1 bu.	Water, 4 oz. to 100 hills.....	3 to 4 lbs.	Emmer..... 40 lbs.
Cabbage, 1 oz. to 2,000 plants.....	4 oz.	Oats.....	2 to 3 bu.	Flax Seed..... 56 lbs.
Carrot, ¼ oz. to 100 ft. drill.....	3 lbs.	Onion Seed, for sets.....	60 to 85 lbs.	Grass Seeds (unless otherwise stated)..... 14 lbs.
Cauliflower, 1 oz. to 3,000 plants.....	3 to 4 oz.	1 oz. to 150 ft. drill.....	3 to 4 lbs.	Hemp Seed..... 44 lbs.
Celery, 1 oz. to 5,000 plants.....	4 oz.	Onion Sets, 1 qt. to 40 ft. drill.....	8 bu.	Hungarian Millet..... 48 lbs.
Cheat.....	2 bu.	Parsnips, 1 oz. to 150 ft. drill.....	3 lbs.	Lawn Grass..... 20 lbs.
Chicory.....	4 lbs.	Parsley, 1 oz. to 150 ft. drill.....	3 lbs.	Meadow Fescue..... 24 lbs.
Clover, Alsike and White.....	8 to 10 lbs.	Peas, Field.....	2 bu.	Millet..... 50 lbs.
Alfalfa.....	15 to 20 lbs.	Garden, 1 lb. to 100 ft. drill.....	1 to 2 bu.	Oats..... 32 lbs.
Crimson Trefoil.....	10 to 15 lbs.	Pepper, 1 oz. to 1,000 plants.....	2 lbs.	Onion Sets..... 32 lbs.
Red.....	10 to 15 lbs.	Potatoes.....	10 bu.	Orchard Grass..... 14 lbs.
Collards, 1 oz. to 2,000 plants.....	4 oz.	Pumpkin, ½ lb. to 100 hills.....	3 to 5 lbs.	Peach Pits..... 48 lbs.
Corn, Pop (shelled).....	8 to 10 lbs.	Radish, 1 oz. to 100 ft. drill.....	10 lbs.	Peas, Smooth..... 60 lbs.
Sweet or Field, hills.....	12 to 15 lbs.	Rape.....	3 to 5 lbs.	Peas, Wrinkled..... 56 lbs.
For soiling drills.....	3 bu.	Tomato, 1 oz. to 2,000 plants.....	4 oz.	Perennial Rye..... 20 lbs.
Cress, ¼ oz. to 100 ft. drill.....	1 lb.	Tobacco, 1 oz. to 4,000 plants.....	3 oz.	Potatoes..... 60 lbs.
Cucumber, 1 oz. to 100 hills.....	2 to 3 lbs.	Turnip, 1 oz. to 150 ft. drill.....	2 to 3 lbs.	Rape..... 60 lbs.
Egg Plant, 1 oz. to 2,000 plants.....	4 oz.	Vetches.....	1 ½ to 2 bu.	Rye..... 56 lbs.
Emmer.....	100 lbs.	With Grain.....	1 bu.	Red Top..... 14 lbs.
Endive, ¼ oz. to 100 ft. drill.....	8 lbs.			Red Top, Solid Seed..... 42 lbs.
Flax broadcast.....	¾ bu.			Timothy..... 45 lbs.
Grass—Kentucky Blue, for pasture.....	1 to 2 bu.			Vetches..... 70 lbs.
Kentucky Blue for lawns.....	100 lbs.			Wheat..... 60 lbs.
Meadow Fescue.....	1 bu.			
Mixed Lawn.....	5 to 6 bu.			
Red Top, Chaff.....	1 to 2 bu.			
Red Top, solid seed.....	10 to 15 lbs.			

Number of Plants per acre at various distances  
In planting trees the greater distance should be given in the richer soils

DISTANCE APART.....	Square Method	Triangu-	DISTANCE APART.....	Square Method	Triangu-
1 foot apart each way.....	43,560	50,300	15 feet apart each way.....	193	223
2 feet apart each way.....	10,800	12,575	16 feet apart each way.....	170	196
4 feet apart each way.....	2,722	3,143	20 feet apart each way.....	108	125
6 feet apart each way.....	1,210	1,397	25 feet apart each way.....	70	81
9 feet apart each way.....	537	620	30 feet apart each way.....	48	55
10 feet apart each way.....	435	502	40 feet apart each way.....	27	31

**Diamond Fertilizers**

will restore and sustain the productiveness of your soil. They are an investment, not an expense, and will return many times their cost.



# ASPARAGUS

Asparagus is one of the earliest Spring vegetables, and would be in universal use were it not for the mistaken idea that it is difficult to grow. In reality it can be produced very easily and cheaply and is a profitable market crop. A bed 15x50 feet, requiring about 100 plants, should give an abundant supply for the average family.

**CULTURE**—Soak seeds 24 hours in warm water, sow early in drills one foot apart. An ounce of seed will sow about 300 feet of drill. Keep the soil mellow and free from weeds. After one year's growth transplant into permanent beds that have been carefully prepared by working to a depth of 24 inches, manuring deeply, using old manure and bone meal; 5 feet is a convenient width for a bed that will carry three rows, and can be reached without treading upon it. Set the plants about 18 inches apart in the rows and spread the roots out, firming the soil down on them. If your soil is well drained the bed may be level, but if not it must be elevated a little. Give a good dressing of well rotted manure after planting and an occasional application of salt or brine. In the Fall when the foliage turns yellow, cut it off and give a dressing of manure or good commercial fertilizer. A warm, sandy soil is the best, and one which has for some years been cultivated in garden crops and heavily manured is greatly preferred to a fresh soil. But at no period of its growth should the asparagus crop be allowed to lack for manuring. From one to two years' time can be saved by buying roots of us. See plant department. 7260 roots will plant an acre.



## PALMETTO

The favorite green asparagus. Extra early and the uniformly large stalks remain tender longer than other varieties, being in prime condition for some days after coming above the ground.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

ASPARAGUS—By Hexamer—166 Pages.  
70c Postpaid



## ARGENTEUIL

A popular French asparagus of great merit; larger and lighter in color than Palmetto; very early. Pkt 7½c—oz 15c—½ lb 35c—lb \$1.15

## CONOVER'S COLOSSAL

A large and rapid grower of excellent quality. Makes large uniform stalks of finest quality. Color light green.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

## ASPARAGUS PLANTS—Best Varieties

ONE-YEAR-OLD PLANTS—Postpaid, 25c dozen, 75c per 50, \$1.00 per 100. By express or freight, 20c dozen, 50c per 50, 75c per 100, \$6.00 per 1,000.

TWO-YEAR-OLD PLANTS—Postpaid, 40c per dozen, \$1.00 per 50, \$1.50 per 100. By express or freight, 25c per dozen, 75c per 50, \$1.00 per 100, \$8.00 per 1,000.

## ARTICHOKE

### LARGE GREEN GLOBE

The variety used as a table vegetable. The edible portion is the thick end of leaf of the flower head.

Pkt 15c—oz \$1.25

### JERUSALEM—White

Produces tubers like potatoes. See description under Field Seeds.

## BEANS

**O**WING to our mild Winters and cool Summers, locally grown acclimated seed from properly selected strains will be found to give best satisfaction in the Pacific Northwest. We are constantly testing and selecting the most dependable and profitable sorts and increasing our facilities and connections for local production, and when we offer a variety as being suited to your requirements and location you can accept it without fear of disappointment.

**CULTURE**—The soil best adapted for growing beans is a light, rich, well-drained loam, which was well manured for the previous crop. If the ground is too freshly manured the plants are apt to run to vines and set few blossoms. Plant in drills about two inches deep and from eighteen inches to two feet apart, as soon as the ground is dry enough and warm—about May 1st, or later, and for succession up to July 15th. Beans are very sensitive to cold and wet before they have sprouted, but are not so liable to be damaged after they are above ground.

Plant about 1 lb. of Dwarf or Bush Beans to 100 ft. of drill, 1 bushel per acre. Pole Beans—1 lb. to 100 hills, requiring about ½ bushel per acre. When planted in hills, 2½ to 3 ft. apart, small varieties such as "Navy" and "Lady Washington" will require from 16 to 25 lbs. per acre; larger sorts running from 25 to 30 lbs. Owing to their short season of growth, from 60 to 80 days, beans generally make a profitable crop for trucking. After harvesting the beans, always plow the vines under to fertilize the soil.

In growing Beans commercially, sufficient moisture, freedom from frost from the middle of May to late September, and thorough preparation of the soil with good cultivation, are the requirements for a profitable crop. Closer planting can be practiced where there is plenty of moisture and under dry conditions as too much moisture will not allow the crop to mature properly and close planting will often hasten maturity by absorbing the moisture, growing conditions being favorable.

Anthracnose produces large, scabby, dead spots on the pods and the controlling measures are the selection of clean seed and spraying the plants with Bordeaux Mixture.

Powdery Mildew, showing a white growth of fungus covering the surface of the leaves, especially rainy or damp weather, should be treated with powdered sulphur.

Cut worms and flea beetles can generally be controlled by the use of "Corona" Arsenate of Lead either sprayed or dusted on the foliage. Ask for booklet "Garden Pests and their Control."



# BEANS (*Continued*)

We offer the following varieties as being best for our western conditions as they have given the largest average yield and are most desirable and profitable for home or market gardens.

For single lbs. by mail add 10c postage. Larger lots at parcel post rates.

## Wax or Yellow Podded Kinds

### DWARF OR BUSH VARIETIES

#### PENCIL POD. BLACK WAX

"Pencil Pod" is the most satisfactory of the early dwarf Wax Beans.

Of dwarf, bushy growth, about fifteen inches high, large, luxuriant foliage, beneath which in great clusters will be found an enormous crop of beautiful straight yellow pods six to seven inches long, well rounded, deeply "saddle backed," meaty and solid clear through; they are brittle, of rich mild flavor, and entirely stringless. An early sure cropper; of the finest quality.

Pkt 15c—lb 35c—10 lbs \$3.25

#### GOLDEN WAX

Very hardy and productive. A good second early variety of fine quality, but should be picked young to avoid strings

Pkt 15c—lb 35c—10 lbs \$3.25

#### DAVIS WAX

Rustless and immensely productive, very hardy and one of the best for market gardeners. The dried bean is kidney-shaped, clear white, and a favorite for baking and canning.

Pkt 15c—lb 35c—10 lbs \$3.25

#### WARDWELL'S KIDNEY WAX

Vines are of medium size, with long, flat pods of a delicate, waxy yellow, very brittle and entirely stringless when young. A favorite main crop variety with market men.

Pkt 15c—lb 35c—10 lbs \$3.25

#### IMPROVED BLACK WAX

The standard early market variety, a sure cropper of good quality.

Pkt 15c—lb 35c—10 lbs \$3.25

## Beans—Green Podded Kind

### STRINGLESS GREEN POD—Extra Early

The finely shaped, long green pods are absolutely stringless, and are ready to market two weeks earlier than any other green-podded bean. It is of immense value, not only to the market gardener, but also for those who seek early beans of a rare quality for the home table. A splendid dried brown bean.

Pkt 15c—lb 30c—10 lbs \$2.75

#### CANADIAN WONDER

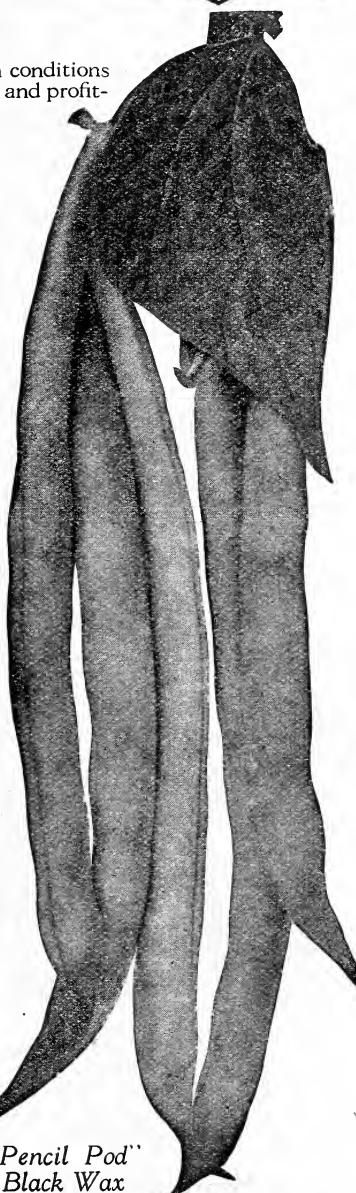
This splendid bush bean is the largest, most prolific of the green-podded sorts, and is entirely stringless in its early development. Comes a little later than the New Stringless Green Pod, but continues in bearing throughout the season, and is excellent shelled green. Pkt 15c—lb 30c—10 lbs \$2.75

#### REFUGEE, OR THOUSAND TO ONE

Of great value on account of its hardiness, vigorous growth and wonderful productiveness. Is not excelled by any other variety as a snap bean, and is considered the best for pickling or canning. Beans small, dark purple, veined brown. Pods of perfect form, dark green, veined purple. Pkt 15c—lb 30c—10 lbs \$2.75

#### ROYAL WHITE KIDNEY

One of the most prolific and hardy green podded bush beans. Of excellent quality as a green bean and later as a shell bean. The large white beans are also superior as a dried bean for baking. Pkt 15c—lb 30c—10 lbs \$2.75



"Pencil Pod"  
Black Wax

BE SURE TO STATE  
The seed for which you want  
Farmogerm

Inoculate this  
Seed with  
**FARMOGERM.**

#### DWARF HORTICULTURAL or "Cranberry Bean"

Grows erect, strong and shrubby, and is very prolific. The bean is highly prized, green shelled. It is rather large, plump and beautifully mottled yellow and red; one of the most delicious and desirable beans and a great favorite with market gardeners. The dwarf type of the old favorite London Horticultural Pole Bean.

Pkt 15c—lb 35c—10 lbs \$3.00



## Beans (Continued)

Dwarf or Bush—Green Podded Kind

For single lbs. by mail add 10c postage. Larger lots at parcel post rates.

### LADY WASHINGTON

Sturdy, bushy plant, erect habit, and is a great improvement over the old "Navy," being much earlier, a little larger, and a very heavy yielder; being especially adapted to our Western soils, and is entirely free from disease. Bush attains a height of about fourteen inches, and beans mature in September.

Pkt 15c—lb 25c—10 lbs \$2.25

### WHITE NAVY

Grown extensively for marketing dry shelled. The best known small white bean. Dwarf in growth and very productive.

Pkt 15c—lb 25c—10 lbs \$2.25

### BROAD WINDSOR

#### "Horse Beans"

Stalk erect, strong and shrubby. The bean is large, broad and flat; should be planted early and is best green shelled. A European variety, very hardy and can be planted earlier than other sorts. Grown extensively for stock in some sections.

Pkt 15c—lb 25c—10 lbs \$2.25

### CASTOR BEAN

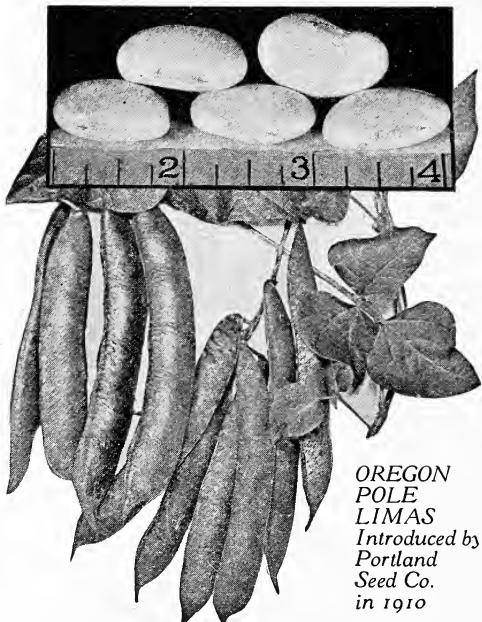
(For Ornamental Varieties see flower seed)

Used for medicinal purposes and by some claimed to keep moles away. Castor beans are very ornamental, the plants and foliage being large and tropical in appearance.

Pkt 15c—lb 45c

## Climbing or Pole Beans

For single lbs. by mail add 10c postage. Larger lots at parcel post rates.



OREGON  
POLE  
LIMAS  
Introduced by  
Portland  
Seed Co.  
in 1910

### Oregon Pole Lima

The only Lima Bean that will thrive in our cool climate.

Oregon Pole Lima can be planted in any garden soil as early as April or late as July. Give the same care and culture as other Beans, and they are ready to use when the pods are filled and first begin to ripen. It is not necessary that they should dry on the vines, except for seed. They are at their best when the full green pods begin to turn yellow. Try "Oregon Pole Lima." It is a wonder, sure to grow, and will produce more fine beans of delicious table quality than any variety we know of.

Price per pkt 25c—lb 50c

**CULTURE**—Do not plant until the soil has become warm and the weather settled—and always remember beans should have rich, well drained soil. It is best to set the poles before planting; these should be six to eight feet high, rows about four feet each way. Plant four to six beans to the hill and thin to two or three, depending on the variety. If trellis is used, sow in hills about one to two feet apart in the row. A pound should plant 75 to 100 hills. A top dressing of commercial fertilizer or old manure should be worked in when cultivating.

### ASPARAGUS BEAN

The True Asparagus Bean is superior to Kentucky Wonder in quality and fully equal in productiveness. The long, slender pods are very fleshy, almost round, crisp, tender and delicious, of a beautiful pale green color, attractive form and absolutely stringless. No bean equals them either for market or home use. They grow vigorously and bear heavily, the vines being literally covered with great clusters of shapely pods.

Pkt 15c—lb 35c—10 lbs \$3.25

### KENTUCKY WONDER

Of the finest quality for table or canning. A vigorous climber; very prolific, bearing in clusters long and very fleshy, succulent green pods; flat, thick and remarkably tender. A first-class pole variety.

Pkt 15c—lb 35c—10 lbs \$3.25

### LAZY WIFE

Pods are from four to five inches in length, produced in large clusters in great abundance. Dark green, thick, fleshy and stringless; of unusually rich flavor. Dry beans, pure white; excellent for winter use.

Pkt 15c—lb 35c—10 lbs \$3.25

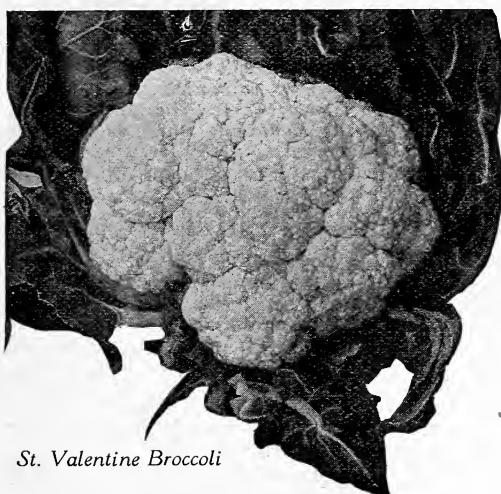
### SCARLET RUNNER

A favorite as a shell bean and for its flowers, which are bright scarlet; seeds broad and kidney shaped.

Pkt 15c—lb 35c—10 lbs \$3.25



# Broccoli or Winter Cauliflower



St. Valentine Broccoli

**B**ROCCOLI is so nearly related to late Cauliflower that the varieties are often listed under both heads—the principal difference being in the hardiness and time of maturity, Broccoli not heading until late Winter or early Spring. Culture is same as for late Cauliflower, and good, rich, well-drained bottom land is best, but well-tilled, well-fertilized upland will produce a good crop.

→ The St. Valentine Broccoli, which we introduced some years ago, is the variety extensively grown by commercial planters—many carloads being shipped from Oregon each season.

## St. Valentine The Finest of All Broccoli

This grand new strain introduced by us is a sure header of immense size, finest quality, and is ready for market in February. The large, solid, handsome, white heads remain in good condition longer than other varieties.

Pkt 15c— $\frac{1}{4}$  oz 50c—oz \$1.50

We are the only source of supply of the genuine St. Valentine Broccoli—our seed stock coming direct from the originator and was introduced by us in 1905.

## BRUSSELS SPROUTS

The plants are hardy, grow two or three feet high, and produce numerous little sprouts, which resemble very small cabbages one or two inches in diameter. The leaves should be broken down in the Fall, to give the little heads more room to grow. They should be treated in all respects like winter cabbage or kale. **DWARF IMPROVED.**

Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 75c

## CAULIFLOWER

**CULTURE**—The Cauliflower succeeds well in any soil where cabbage will grow but best results are obtained in rich loam with an abundance of water. By sowing early varieties in a hot bed in February or March, or later in a cold frame, fine heads can be obtained quite early. For a later supply, sow seed in a prepared bed in May, choosing a cool, moist place. When large enough transplant, making the rows about two and a half feet apart and eighteen inches between the plants. In dry seasons the crop must be watered.

### LENORMANDS

A short stem, large heading variety, firm and white, of excellent quality—a little later than Snowball. Pkt 15c—oz \$2.00— $\frac{1}{4}$  lb \$7.00

### LARGE ALGIERS

A valuable late sort, sure to head, of the best quality and very popular with market gardeners everywhere. Plants large, but of upright growth, the leaves protecting the heads so that they will endure, uninjured, a frost that would ruin other sorts. One of the very best of the late varieties.

Pkt 15c—oz \$2.00

### VEGETABLE PLANTS

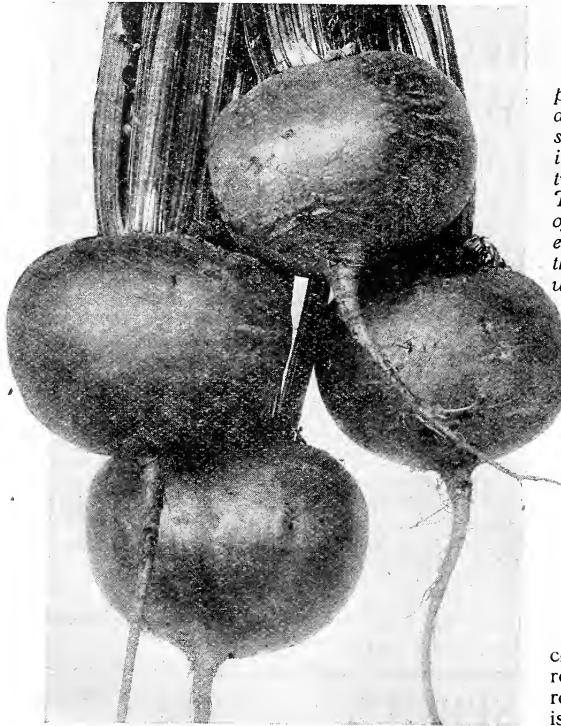
Thrifty well grown standard varieties in any number for seasonal delivery. See PLANT DEPARTMENT.

### AUTUMN GIANT

The heads are white, large, compact and thoroughly protected by foliage.

Pkt 15c—oz \$1.50— $\frac{1}{4}$  lb \$5.00

**A 100-lb. Bag of High Grade Commercial Fertilizer** will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and there are no weed seeds to worry over. Our Free Booklet, **FERTILIZERS**, tells what fertilizers are best and how to use them profitably.



P. S. Co.'s Market Gardener

#### EXTRA EARLY EGYPTIAN

The best variety for forcing, and for market gardeners, being very early with small tops. Roots very dark red, rounded on top, but flat beneath, with very small tap roots.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

#### LONG SMOOTH DARK BLOOD

The leading late variety, keeping well all Winter. Should be planted in rich, warm soil to secure rapid growth, which makes them tender. Top small, root long and smooth. Flesh deep purple, fine and sweet.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

#### SUGAR BEET

KLEIN WANZLEBEN—This is the standard variety grown commercially for the production of sugar.

Pkt 10c—oz 15c—¼ lb 50c—lb \$1.75—10 lbs \$15.00

## Swiss Chard

New Savoyed Leaf "LUCULLUS." An improved variety of "Swiss Chard," growing about two and a half feet high. The heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of "greens." By cutting back the leaves close to the ground tender shoots spring up quickly, these or the mid-rib are very delicious cooked as asparagus. Swiss chard is hardy, easily grown and should be in every garden. It is one of the most delicious of all vegetables.

Pkt 10c—oz 20c—¼ lb 65c

## BEETS

**CULTURE**—The Beet is hardy and may be planted as soon as the ground can be well prepared, doing best in rich, sandy soil, sown in rows sixteen inches apart, covered one and one-half inches deep. The seed will sprout better if soaked twenty-four hours in warm water before planting. Thin out by using the largest ones when they are of sufficient size, continuing until they are six or eight inches apart in the rows. For field crop, the rows should be far enough apart to permit the use of a horse cultivator.



#### P. S. CO.'S MARKET GARDENER

This new, extra early Beet is remarkable for its fine quality and rapid growth; it is of deep red color and handsome shape; as an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance and of superior quality for the table, holding its color and cooking quickly. Market gardeners prefer it as it matures evenly, stands a long time and does not split.

Pkt 10c—oz 20c—¼ lb 65c—lb \$2.00

#### DETROIT DARK RED TURNIP

A fine Beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip shape with small taproots. One of the deepest red beets. Quality is of the finest; sweet and tender, best beet for home gardens.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

#### EARLY ECLIPSE

One of the best early sorts. It possesses all the qualities requisite in a first-class beet, and is of a uniform, globular shape. The roots are a bright, glossy red, fine-grained and delicious.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

#### HALF LONG BLOOD

A new variety of excellent quality. One of the very best for Winter use; does not become woody and keeps as well as the long Dark Blood. The root is smooth and handsome, and the flesh is brilliant in color and as good in quality as the best Blood Turnip varieties. Give it a trial.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

#### EARLY BLOOD TURNIP—IMPROVED

An extra selected stock of blood turnip having larger, coarser tops and roots than the Detroit Dark Red, and requiring a longer time to mature. Excellent for Summer and Autumn use.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35



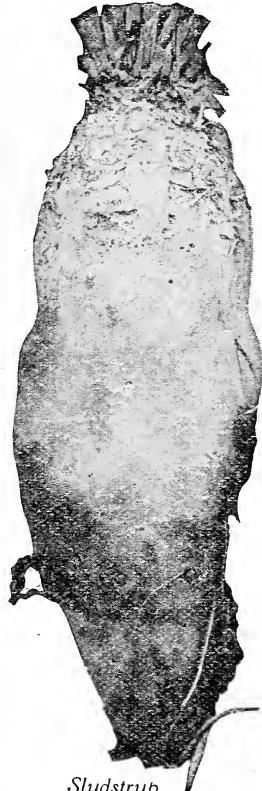
Swiss  
Chard  
"Sea  
Kale"

## Beets (Continued) MANGEL WURZEL

These are grown extensively for stock feeding, and afford large quantities of fresh, nutritious and wholesome food during the Winter months, in connection with grain and dried forage. Sugar Beets are richer and sweeter than Mangels, but do not produce as heavily.



Eckendorf



Sludstrup

**CULTURE OF MANGEL AND SUGAR BEETS**—Thoroughly fine soil as good roots cannot be grown in lumpy, poorly prepared ground. The largest crops come from a soil ranging from light to a friable clay loam that has received from eight to fifteen loads of manure to the acre. This can be plowed in or half broadcast and half used in the furrows; a deep plowing in of fresh manure in the Fall is best. It is also necessary to add some commercial fertilizer, but any good soil will grow a fair crop under ordinary culture.

Use 6 to 10 pounds of seed to the acre, depending on whether machine or hand planting is used, planting liberally so that in thinning an even stand can be secured. The rows can be 18 to 30 inches apart, depending upon soil and method of culture. Level culture is best. If planted during dry weather, be sure the seed is in from one to one and one-half inches as it requires lots of moisture to burst the hard shell.

A poor stand and weak germination is often due to improper planting and lack of moisture. Transplanting can be successfully done to fill vacancies. Do this before a shower, and early, breaking off the tops of the larger leaves.

Like all root crops, they require clean culture. Thin early, giving two thinnings, and leaving the plants 10 to 12 inches apart. The medium sized roots have the greatest food value.

Forty to sixty tons is a fair yield of Mangels. Sugar Beets, 10 to 13. Beets are easily spoiled even by light freezing and should be cut and stored to protect from frost, covering with a little soil to prevent evaporation.

### YELLOW GIANT, INTERMEDIATE, or Gate Post

Roots very large, growing over one-half out of the ground; flesh white, sweet and tender; tops bright green, comparatively small; neck small, short. Its fine flesh never becomes woody and the crop is easily harvested.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

### NEW MANGEL HALF SUGAR

A new variety, more valuable for feeding purposes than the old sorts, yields as much per acre as the best Mangels, and twice as much per acre (bulk of roots) as the rich sugar beet. Roots large, very smooth, with few rootlets; creamy white in color, with medium sized tops.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

### IMPROVED DANISH INTERMEDIATE— TAAROJE—For Heavy Soils

Large, smooth, oval shaped mangel that grows high above the ground and is easily harvested. For very heavy soils this variety is preferable to the "Sludstrup." The food value is very high, the yield large. Special awards and first-class certificate by the Danish Government.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

### DANISH SLUDSTRUP

Long, reddish-yellow, grows well above the ground, and is easy to pull. Has repeatedly been awarded a first class certificate by the Danish Government.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

### GIANT RED ECKENDORF

Is of straight, cylindrical form, very blunt, and grows mostly above the surface. Awarded a first-class certificate as a very heavy cropper.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

### GOLDEN TANKARD

Dairy farmers state they are able to obtain a higher price for milk when feeding cows on "Golden Tankard." Sheep thrive on it. "Golden Tankard" is of a rich, deep yellow throughout. Early, hardy and a heavy cropper.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50

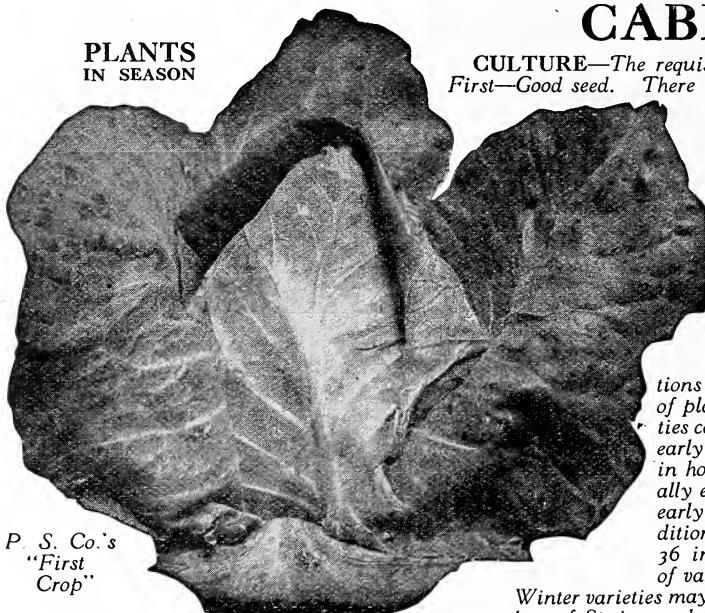
### MAMMOTH LONG RED

An improvement on the Long Red, with ordinary cultivation. If you want a large crop of large Mangels of good quality, don't fail to try this sort. Very uniform, smooth and of good shape. Should be grown in deep loose soil.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.00—10 lbs \$9.50



**PLANTS  
IN SEASON**



P. S. Co.'s  
"First  
Crop"

It is important that the plants should not be crowded in the seed bed, or they will run up weak and slender and be likely to make long stems.

**P. S. CO.'S FIRST CROP**

**The Ideal Early Cabbage**

The earliest of all pointed varieties and an ideal sort for the private or market gardener.

First crop is ten days ahead of other varieties, takes but little room, and produces fine, solid heads.

Pkt 10c—oz 60c— $\frac{1}{4}$  lb \$2.00

**SUCCESSION**

Heads large, slightly flattened; grows low on the stem. Pkt 10c—oz 65c— $\frac{1}{4}$  lb \$2.00—lb \$7.

**CHARLESTON, or LARGE WAKEFIELD**

Large and a little later than the "Early Jersey Wakefield."

Pkt 10c—oz 40c— $\frac{1}{4}$  lb \$1.25—lb \$4.00

**RED CABBAGE**

**Odense Market**

Used for pickling. The heads are very fine and remarkably sure heading.

Pkt 10c—oz 75c— $\frac{1}{4}$  lb \$2.25—lb \$7.00

**LATE CABBAGE**

**DANISH ROUND HEAD**

A round ball shaped cabbage of great solidity. Color, rich dark green, has few outer leaves, is very hardy and is a profitable late market variety.

Pkt 10c—oz \$1.00— $\frac{1}{4}$  lb \$3.25—lb \$11.50

**PREMIUM LATE FLAT DUTCH**

This improved strain possesses all the good qualities of the "Late Flat Dutch," and is a sure header. Pkt 10c—oz 60c— $\frac{1}{4}$  lb \$1.75—lb \$6.00

# CABBAGE

**CULTURE**—The requisites for complete success are:

**First**—Good seed. There is no other vegetable where the seed has so much influence on the quality of the product, and gardeners should always use the best procurable. **Second**—Rich, well prepared ground. **Third**—Frequent and thorough cultivation. A heavy, moist and rich loam is most suitable, which should be highly manured and worked deeply. Cabbage is universally grown and specific directions regarding the time and method of planting applicable to all localities cannot be given. In general, the early sorts should be sown very early in hot beds, hardened off by gradually exposing to outside air, and as early as the ground is in good condition, transplanted, setting 18 to 36 inches apart, according to size of variety. The late Autumn and

Winter varieties may be sown from the middle to the last of Spring and transplanted when four to six inches high. Shade and water the late sowings in dry weather to get them up.

**EARLY JERSEY WAKEFIELD**

The favorite Early Cabbage with our market gardeners. A sure header. The thick, stout leaves and compact habit make it the best for Wintering over and very early setting.

Grown more extensively for market than any other early cabbage. Is always of good size, very solid, and has but few outside leaves; a reliable header and always gives good satisfaction.

Pkt 10c—oz 75c— $\frac{1}{4}$  lb \$2.50—lb \$9.00

**EARLY DWARF FLAT DUTCH**

Grows low on the stem; a sure header; firm, fine grained, tender, and excellent.

Pkt 10c—oz 60c— $\frac{1}{4}$  lb \$2.00—lb \$6.50

**SAVOY CABBAGE**

**Vertus—Late Savoy**

Large, compact heads; crisp and tender with a rich flavor. Desirable for cooking or salads.

Pkt 10c—oz 75c— $\frac{1}{4}$  lb \$2.25—lb \$7.00

**DANISH BALL HEAD OR HOLLANDER**

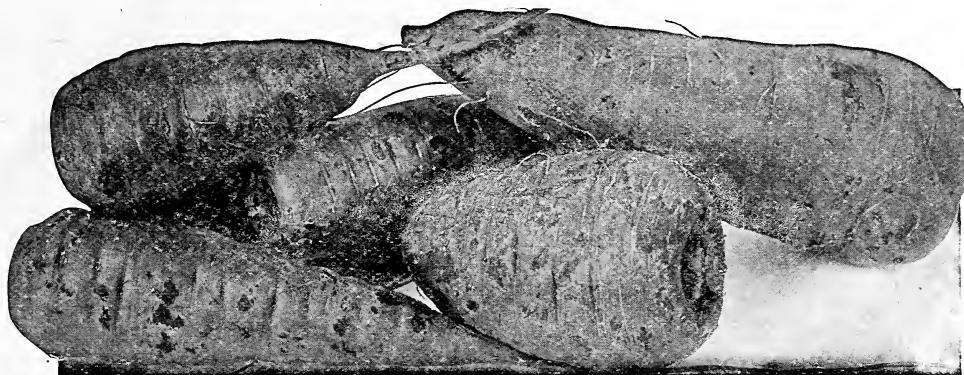
This is one of the hardest cabbages in cultivation and endures both frost and drouth that would destroy other varieties.

Plants rather long-stemmed, but compact; leaves very smooth, but thick; head of medium size, round and very solid, the hardest heading cabbage we know of, and of the very best quality. Matures quite late, keeps well, and is considered by many the best cabbage to hold over for Spring markets.

Pkt 10c—oz \$1.00— $\frac{1}{4}$  lb \$3.25—lb \$11.50

**Cabbage Plants** Well grown stocky plants, properly hardened off—all standard sorts in season. Prompt deliveries at right prices. See Plant Dept.

# CARROTS



**C**ARROTS, aside from being one of our most useful and easily grown garden vegetables, are invaluable for stock feeding. They are greatly relished, promote health and put a sleek coat on cattle and horses, giving a well-kept appearance. Dairy and stockmen should grow them extensively. For their special use we recommend our "Yellow Giant."

**CULTURE**—*A sandy loam is the best soil for the carrot, but any good land, if thoroughly and deeply worked, will produce satisfactory crops. Sow as early in the Spring as the ground is fit to work, though good crops may be grown from sowing as late as June 15. For table use, sow the smaller kinds in rows 16 to 18 inches apart, and for field culture prepare the ground thoroughly and sow in drills 18 to 24 inches apart. Cover one-half to one inch deep and see to it that the soil is well firmed above the seed.*

#### P. S. CO.'S NEW CORELESS

A splendid new carrot. Larger than other early varieties. Crisp, solid of fine flavor and entirely coreless, grows smooth and uniform, a true stump rooted type. The very best for canning or drying as it is coreless and has no tap root to trim off and waste. Holds its color and cooks quickly. The ideal carrot for home gardens. **Pkt 10c—oz 30— $\frac{1}{4}$  lb 85c—lb \$2.75**

#### EARLY SCARLET HORN

The best early kind for general use. It is larger than the forcing variety, but fully as good in quality, and produces a much larger crop.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### CHANTENAY

##### The Market Gardener's Favorite

Tops, medium sized; necks, small; roots, tapering slightly, but uniformly stump-rooted and smooth; color, deep orange red; flesh, very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any; is a heavy cropper, and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### P. S. CO.'S YELLOW GIANT STOCK CARROT

Specially adapted to moist, heavy soils. The earliest and most productive stock carrot offered to date. It is a half long variety, with an immense broad shoulder. The Carrot penetrates less than one-half the depth into the ground, which saves about one-half the expense of harvesting the crop. The color is bright yellow, and is perfection itself for giving the proper color to butter. Every dairyman who wants a big crop of carrots of the right quality should plant our Yellow Giant.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### OXHEART

A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### DANVER'S HALF LONG

Grown largely on account of its productiveness and adaptability to all classes of soil. Tops, medium sized, coarsely divided. The smooth, handsome roots are of medium length, tapering uniformly to a blunt point; flesh, sweet, crisp, tender; deep orange in color.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### P. S. CO.'S IMPROVED LONG ORANGE

Popular for farm use on deep, mellow soil. Our stock is an improvement obtained by years of careful selection of the best formed and deepest colored roots, which grow to a large size. One of the best varieties for feeding stock.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25**

#### IMPROVED SHORT WHITE—"MAS-TODON"

##### Of Excellent Table Quality

Ranks as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly at the point; color, light green at the crown, white below; flesh, rich, white, solid, crisp and of excellent flavor. **Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00**

#### LARGE WHITE BELGIAN

Extensively grown for stock feeding; very productive. Grows so much above the ground that the entire crop can be pulled by hand.

**Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00**



# CELERY

**CULTURE**—Sow the seeds early, about February, in a hot-bed or cold frame. When three inches high transplant, setting them four inches apart. When grown six inches, and fine, stocky plants, set in richly manured, deep soil, in rows three and a half feet apart and about nine inches from plant to plant. Water if dry weather follows transplanting. During the next two months all the attention that is required is to keep down the weeds. Blanch by placing boards along the rows, or earth up a little, and continue doing so at intervals until only the tops of the leaves are visible late in Autumn. **Never hoe up the earth when plants are wet.** One ounce of seed produces about six thousand plants. See footnote on growing.



## WHITE PLUME The Leading White Celery

A handsome, crisp sort, of very easy cultivation. Naturally its stalks and portions of its inner leaves and heart are white, so that by closing the stalks either by tying or by simply drawing soil up against the plant and pressing it together, the work of blanching is completed without the troublesome process of "banking" or "earthing up." It is the earliest celery known.

Pkt 10c—oz 35c— $\frac{1}{4}$  lb \$1.00—lb \$3.25

## GOLDEN YELLOW SELF-BLANCHING

This is no doubt the best celery for early Spring market use. Plants are of a yellowish green color when young, but as they mature the inner stems and leaves turn a beautiful golden yellow, which adds much to their attractiveness and makes the work of blanching much easier.

Pkt 10c—oz 50c— $\frac{1}{4}$  lb \$1.50

## GOLDEN HEART, OR GOLDEN DWARF

Grows a compact, crisp, solid stalk of fine, nutty flavor.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 50c—lb \$1.75

## WINTER QUEEN

This is without doubt the most valuable variety of celery for Winter and Spring use ever introduced. Has double the amount of heart of any known celery. The plant has a fine appearance, of compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and a delicious nutty flavor.

Stored for Winter or Spring use, it is an excellent keeper and when taken out the blanched stalks will be firm and crisp; entirely free from strings; brittle and of sweet flavor.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 85c—lb \$3.00

## GIANT PASCAL

Largest variety grown; of fine, nutty flavor; very easily blanched.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c—lb \$2.25

## CELERY SEED.

For flavoring. Oz 10c— $\frac{1}{4}$  lb 20c—lb 65c

### CELERIAC

#### Turnip Rooted Celery

#### Large Smooth Prague

Improved form with very few side roots. The largest and best variety.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c



Celeriac  
Turnip  
Rooted  
Celery

## CELERY PLANTS

Large  
Healthy  
Transplanted  
Plants in  
Standard  
Varieties  
for  
Delivery in  
Season.  
Any Number  
at  
Right Prices.

See  
Plant  
Department.

To Succeed with Celery you must keep your plants growing constantly while young, if you allow them to "stand still" they will run up to seed later. Always cultivate as soon after watering as the ground is dry enough to work well. Fertilize heavily in the spring—and use nitrate later if needed.



## DIAMOND FERTILIZERS FOR CELERY

Read our Fertilizer Book. Mailed free on request.

# CUCUMBERS

## "CORONA DRY"

Powdered Arsenate of Lead will protect Cucumbers and other vegetables from leaf-eating insects. Ask for a free copy of

## 'GARDEN PESTS AND THEIR CONTROL'



*Diamond Long Green*

**CULTURE**—Cucumbers need a warm, rich soil, and should not be planted in open ground until the weather is settled, as otherwise they will not thrive. Plant in hills four feet apart each way, thinning to three or four of the strongest plants, after danger from insects is passed. As fast as the cucumbers attain suitable size they should be taken from the vine, whether required for use or not, as their ripening soon destroys the vines' usefulness.

## "DIAMOND" LONG GREEN

The leading large variety. Fruit from ten to twelve inches long, dark green, crisp and tender. A good variety for slicing, and when ripe they are the best for sweet pickles. We offer our "Diamond Strain"—they will grow long and uniform in shape. Pkt 7½c—oz 15c—¼ lb 50c—lb \$1.50

## PEERLESS, OR EARLY WHITE SPINE

One of the best sorts for table use, fruiting early and abundantly. Fruit uniformly straight and handsome; light green, with a few white spines. Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

## LEMON CUCUMBER

This dainty little cucumber resembles a lemon both in form and color, having a distinctive flavor superior to and not found in any other cucumber. The Lemon Cucumber is so prolific that a single vine will be ample for the needs of the average family. It is also said that the Lemon Cucumber can be eaten without fear of the harmful results that some experience from eating cucumbers.

Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.50

## JAPANESE CLIMBING

A useful variety for growing on a trellis or wire. The cucumbers are long, of a dark green color, white flesh, crisp, and of a good flavor.

Pkt 7½c—oz 15c—¼ lb 50c

## CORN SALAD

### Fetticus, or Lamb's Lettuce

A refreshing salad, used extensively in Winter and Spring as a substitute for lettuce. It is often cooked like spinach. Sown in drills one foot apart, in the Spring or Fall. On the approach of cold weather cover over with straw or coarse litter.

Pkt 7½c—oz 25c—¼ lb 75c

## "DIAMOND QUALITY" HIGH GRADE FERTILIZERS

It is established beyond question that different crops remove from the soil definite amounts of different Fertilizing elements, and it is the aim in manufacturing our "Diamond Quality" Fertilizers to supply these elements in the proportions required. See our booklet "Fertilizers."

## FOR CUCUMBERS

"Diamond Fertilizer" will repay its cost many times over. Let us send you our Free Book "FERTILIZERS"

## BOSTON PICKLING or GREEN PROLIFIC

Color, bright green, and a great producer. The fruits average four to five inches in length when large enough for slicing, and are of excellent quality, but it is for producing medium sized pickles that this variety is so highly esteemed.

Pkt 7½c—oz 15c—¼ lb 50c—lb \$1.50

## "THE DAVIS PERFECT" CUCUMBER

The "Davis Perfect" is of perfect form, large size and of the finest color; is crisp, delicious and almost seedless. This fine variety comes from the originator of the Davis Wax Bean and is one of the most valuable varieties for home or market.

The "Davis Perfect" is as handsome, grown outside, as any hothouse cucumber.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

## EARLY RUSSIAN

Earliest and hardiest. Very vigorous and productive. Fruit three to four inches long, thick, oval, pointed at each end, and covered with fine small spines. Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

## GHERKIN FOR PICKLING

A very small, oval, prickly variety, quite distinct from all others. Pkt 7½c—oz 15c—¼ lb 50c

## TELEGRAPH—FORCING

A standard forcing variety, very popular with gardeners. Fruit fourteen to sixteen inches long, of very fine quality. A sure and heavy cropper.

Pkt 25c

## CRESS

### Curled, or Pepper Grass

This salad is much used with lettuce, to which its warm, pungent taste makes an agreeable addition. The seed should be sown in drills about 16 inches apart, on very rich ground, and the plants well cultivated. It may be planted very early.

Pkt 7½c—oz 15c—lb \$1.50

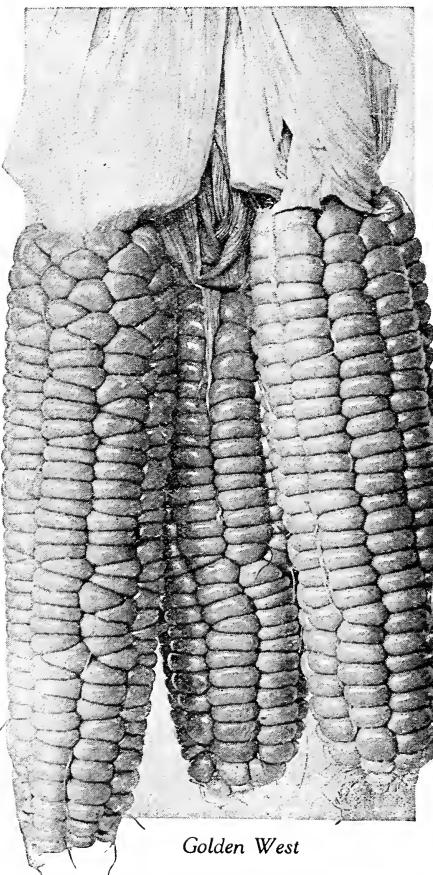


# SWEET OR SUGAR CORN

**For single lbs., by mail, add 10c postage; large lots at parcel post rates**

**CULTURE**—Corn should not be planted until the ground is warm, as the seed will rot in cold, damp soil, or if planted too deep. Late April is early enough for first plantings and for succession plant every two weeks through May and June. Cover the first planting very lightly, increasing the depth a little for the later plantings. For the Dwarf Early varieties, rows should be three feet apart; for later large varieties, four feet, and the hills two to three feet in the rows.

Sweet or Sugar varieties are used both for table and stock feeding, some of the large later sorts being preferred for silos and fodder.



*Golden West*

## BLACK MEXICAN

An old favorite still in good demand on account of its quality and sweetness. A good variety for home gardens.

Pkt 15c; lb 30c—10 lbs \$2.50

## STOWELL'S EVERGREEN

Remarkable for remaining a long time in a fresh condition suitable for the table. Hardy and productive and the best late variety for general use.

Pkt 15c—lb 30c—10 lbs \$2.50

## FOR THE CORN EAR WORM

Dust "Corona Dry" on new silk as soon as it appears

**FIELD CORN**—For best varieties for silo, for fodder or for grain see field seeds

## REMEMBER

The rich flavor and sweetness of corn disappears quickly after gathering, and to be at its best state must be used at once



## GOLDEN WEST—Oregon Grown Seed

*The richest, sweetest corn ever grown*—To be sure of the right strain, look for our Diamond trade mark on every package.

Our "Golden West" Corn, a selection from the original strain of Golden Bantam, produces a larger ear, has a more vigorous growth, and by continued careful selection, improves yearly. We believe it to be the richest, sweetest, best yielding early sweet corn. "Golden West" is extremely hardy, can be planted earlier than other varieties, and, being of dwarf habit, can be planted closer than other sorts. It is the very best corn for market or home gardens, where earliness and quality are considered. The color is a rich, creamy yellow, deepening to golden as it matures, and the quality is so fine that you must try it to appreciate how good corn can be.

Pkt 15c—lb 35c—10 lbs \$3.25

## GOLDEN BANTAM

The original yellow sweet corn. Does not grow quite as large an ear as our "Golden West," but has most of its good qualities; early, productive, sweet and rich. Pkt 15c—lb 30c—10 lbs \$2.75

## OREGON EVERGREEN

We offer "Oregon Evergreen" as the finest main crop Sweet Corn. The flavor and sweetness have not been excelled and the extreme whiteness of the large ears makes it very beautiful and valuable for canning. It is large and the stalks produce more ears than any other variety and have a very heavy husk over the grains, protecting them from insects and keeping the ear fresh a long time after cutting.

"Oregon Evergreen" is a hardy, vigorous grower and a good Corn for market gardeners.

Pkt 15c—lb 30c—10 lbs \$2.75

## EARLY MINNESOTA

This old and deservedly popular variety is one of the best early sorts for the market and the private garden. Pkt 15c—lb 30c—10 lbs \$2.50

## EARLY WHITE CORY

### Mammoth

The stalks are no larger than those of the "White Cob Cory," but each stalk furnishes two or more large, fine-shaped ears, which are fit for use before those of most other sorts. The ears are 12-rowed, very symmetrical and handsome. The grain is large, broad, very white and of remarkably good quality.

Pkt 15c—lb 30c—10 lbs \$2.50



Black Beauty

## EGG PLANT

Should be started in a hotbed and transplanted when the weather is settled and the ground thoroughly warm. They will thrive with the same treatment as that given the tomato.



### BLACK BEAUTY

An extra early, quick-growing, vigorous variety, handsome and very uniform. Color, deep blackish purple. Splendid market sort.

Pkt 10c—oz 60c— $\frac{1}{4}$  lb \$2.00

### NEW YORK IMPROVED, LARGE PURPLE

The leading market variety. Large, round, dark, excellent and the most productive.

Pkt 10c—oz 60c— $\frac{1}{4}$  lb \$2.00

## GARLIC

**CULTURE**—Garlic is a profitable crop if your soil is right and proper methods of culture are employed. The sets are planted in the same manner as Multiplier Onions, dividing the little clump, planting each bulblet thick end down, being careful not to bruise them as they will rot if injured. October is the planting month in Western Oregon.

A medium loam soil containing a little sand and well-drained is best and commercial fertilizer should be used. Deep and thorough preparation of the soil is necessary.

Plant in rows 14 inches apart—sets 4 inches apart in the row. It requires 175 to 200 lbs. to plant an acre. When approaching maturity, the tops die down and are not removed but used to braid the Garlic together for hanging up and convenience in handling. An acre should produce from two to four tons.

Write for prices.

## KALE

### EMERALD ISLE—Finest in the World

This is really the handsomest Kale that has ever come under our notice; and is entirely distinct from other strains, very hardy, of medium height, and very vigorous, throwing out new shoots as fast as the leaves are used, and will furnish excellent greens all winter. The closely curled, handsome leaves are most attractive and of fine flavor. Fine exhibition plant. Oregon grown seed.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

### TALL GREEN CURLLED SCOTCH

Grows about two feet high; leaves dark green, curled and wrinkled; very hardy and is improved by a slight frost. Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 70c

### HALF DWARF MOSS CURLLED

Medium sized leaves, nicely curled.

Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 70c

### DWARF GREEN CURLLED

Leaves beautifully curled and bright green.

Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 70c

For COW KALE see FIELD SEEDS.

## Vegetable Plants

Thrifty, well grown, true to name standard varieties in any quantity for seasonable delivery. See Plant Department.

## ENDIVE

This is a hardy vegetable, cultivated principally for a Winter salad. Sow from May until August for a succession of crops; tie the leaves closely together to blanch them.

### BROAD LEAVED BATAVIAN (Escarolle)

Has broad, thick leaves, which form a large loose head.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c

### WHITE CURLLED

A beautiful variety, with curled, mossy leaves, for early use.

Pkt 7½c—oz 20c— $\frac{1}{4}$  lb 60c

### GREEN CURLLED

Standard sort for Fall and Winter.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c

## HORSE RADISH ROOTS

For prices and description, see Plant Department

## KOHL RABI

Hardy and of easy culture. Grown from plants the same as cabbage. The Kohl Rabi is a vegetable intermediate between the cabbage and turnip and combines the flavor of both. The edible part is a turnip-shaped bulb formed by the swelling of the stem. Kohl Rabi is far superior to cabbage or turnips in the delicacy of its flavor and is a splendid addition to every garden. It should be eaten before growth ceases.

### EARLY WHITE VIENNA

Very early; bulb white; best table variety.

Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 85c

### EARLY PURPLE VIENNA

Same as above except in color, which is purple.

Pkt 7½c—oz 25c— $\frac{1}{4}$  lb 85c

## LEEK

The Leek belongs to the Onion family. Prized for soups. Cultivate same as Onions, but should be hilled up about the neck to blanch it.

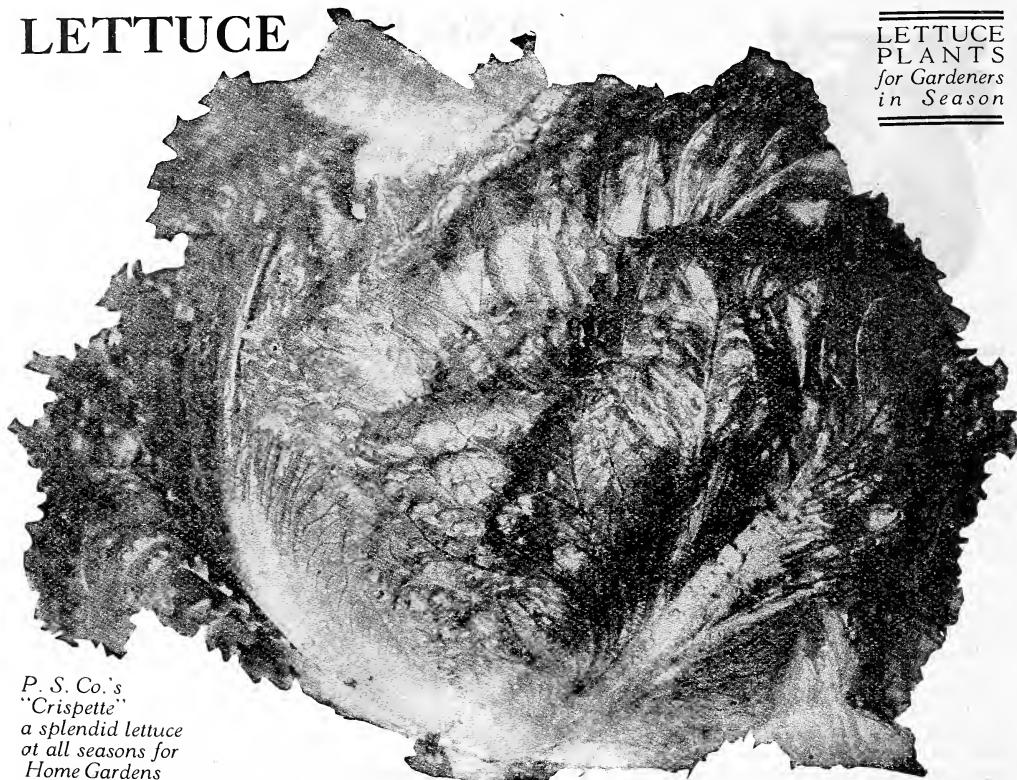
### LARGE ROUEN, or American Flag

A large, favorite American sort.

Pkt 7½c—oz 30c— $\frac{1}{4}$  lb 90c



# LETTUCE



LETTUCE  
PLANTS  
for Gardeners  
in Season

P. S. Co.'s  
"Crispette"  
a splendid lettuce  
at all seasons for  
Home Gardens

**CULTURE**—Lettuce is so extensively grown that cultural directions seem unnecessary, but we offer a few simple suggestions that may save a later disappointment, as any failure is generally blamed to the seed. This should not be, as Lettuce, like many other vegetables, requires very rich soil, plenty of water, a cool growing season and intense culture to produce the best results. If the earliest varieties are planted out in the Spring, and the weather turns dry and hot, they will run up to seed without heading. The same seed sown in the Fall or with cooler growing weather would develop perfectly. At a temperature of 40 degrees or lower Lettuce will not thrive. At 65 degrees and upward it has a tendency to run up and not head properly. For outside planting sow the seed in shallow drills from one to two ounces to the 100 yards. An ounce will produce 3,000 plants. Four pounds should plant an acre. Lettuce matures in forty to sixty days from time of planting.



## P. S. CO.'S CRISPETTE

Our "New Crispette" is a beautiful lettuce, the quality of which is simply perfect. The large, curly leaves, which cover the outside of the solid heads, are of a bright, light green. The unusual solidity of the heads is insured by the large, white main ribs of the leaves, each of which curving strongly toward the center, makes it impossible for the leaves to open outward and expose the center, which will always be found crisp, tender, sweet and melting. It matters not whether grown to head in the early Spring or the hottest days of Summer, the leaves are always **crisp and tender**. Pkt 10c—oz 20c— $\frac{1}{4}$  lb 60c—lb \$2.00

## MAY KING

A large growing, smooth leaved, richly flavored sort. Plant, light green, with round leaves, which form into a very solid, compact, round head; stands a long time without running to seed. Inner leaves blanch to a rich golden yellow. **Exceedingly rich, tender and buttery.** Fine for open ground or forcing. For succession plant in spring, then in August and again in September.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## GRAND RAPIDS—For Early Forcing

As a Lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list. Of quick growth, and stands for some days after being fit to cut. The plant is upright and forms a loose head or cluster of large, light yellowish green leaves, slightly crimped and blistered, rather thin, good flavor, crisp and tender. It will stand shipping better than most curled sorts.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## ALL SEASONS

A valuable new "Butter Head" Lettuce; the best main crop variety, as its large heads continue to grow for two or three weeks after they are ready to use, and are very slow to seed.

"All Seasons" is headed up ready for use in less than ten weeks from planting. Color of outer leaves is a bright green; with inner leaves blanched a rich golden-yellow; very crisp and of excellent flavor. Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## LARGE DRUMHEAD

One of the largest heading kinds, but the heads are not so solid as the "Hanson" or "Deacon."

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

## Lettuce (Continued)

### NEW YORK OR WONDERFUL The Best Head Lettuce for Market Growers

This is the mammoth head lettuce so popular in California, called "Los Angeles." The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. "New York" is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head.

Pkt 7½c—oz 20c—¼ lb 60c—lb \$7.00

### DEACON

Heads very solid and of excellent flavor, remains in condition for use as long as any variety in cultivation. Plant medium sized, with very few outer leaves, which are deep green and very thick; while the inner ones blanch to a bright yellow and are exceedingly well flavored, crisp and tender. Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### EARLY PRIZE HEAD

Standard sort; one of the best thin leaved, clustering varieties. The very large leaves are savoyed or crimped, bright green, tinged with red, and are exceedingly tender, crisp and sweet, forming a large loose head.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### WHITE PARIS COS.

A distinct variety, forming oval, upright heads, largest near the top. It is hard, tender and crisp.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

**D I A M O N D F E R T I L I Z E R S W I L L F O R C E L E T T U C E E A R L Y —** Make Big Solid Heads — Tell us whether you are growing under glass or outside and we can tell you what fertilizer is best, and how to use it profitable — Fertilizer Book Free — Ask for it

## MUSTARD

**Mustard** is used alone as "greens," or with cress as salad. Sow any time in the Spring, in rows, and thin out as necessary.

**FORDHOOKE CURLED**—Beautiful dark green, finely curled plume-like leaves that are of distinctive flavor; superior to spinach as greens and is fine for salads.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.25

**WHITE ENGLISH**—Leaves mild, tender when young; seeds yellow.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

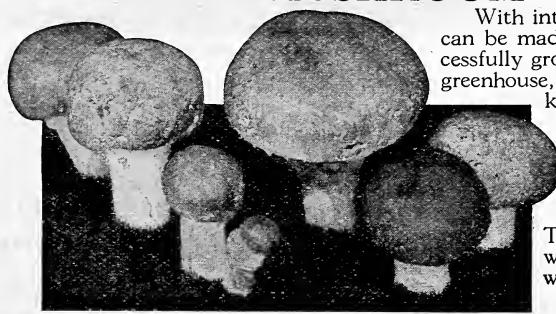
**SOUTHERN GIANT CURLED**—We offer a fine strain of the true curled leaf.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**CHINESE MUSTARD**—Less pungent than other varieties. Chinese Mustard is most delicious, thriving at the same season and under conditions that are favorable to spinach.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

## MUSHROOM SPAWN



With intelligent care and good spawn, Mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50° to 60° through the Winter. Our free pamphlet gives general instruction.

### LAMBERT'S PURE CULTURE

A new kind of spawn, without a doubt the best; superior to the common English. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed 1 foot apart each way. A brick will plant 10 square feet.

Price per brick 30c—postpaid 40c

Write for price in large lots.



**MUSHROOMS:** How to Grow Them. By Falconer. 162 pages. Postpaid \$1.10  
**MUSHROOM CULTURE and Pure Culture Spawn.** 32 pages. Postpaid .35

### HANSON

### Improved Hard Heading Stock

One of the very best. Heads green outside and white inside; grow to a remarkable size, very solid, and is deliciously sweet, crisp and tender. It withstands the hot sun well.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### SIMPSON'S EARLY CURLED

A leading market variety used for very early planting and forcing. Forms a dense mass of finely curled and wrinkled leaves that are excellent and tender, and do not wilt readily.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### BLACK SEEDED SIMPSON

Forms a close, compact mass of curly leaves of a yellowish green.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### EARLY TENNIS BALL

The plant is small, of rapid growth, and should be used as soon as large enough, as it quickly runs to seed. Leaves dark green, thick and crisp. One of the best for growing under cover, and for forcing. Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

### BROWN DUTCH

Forms a large, solid head, sweet, tender and of good flavor. Outer leaves are tinged with brown. It is very hardy.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

**BURRELL GEM**

**The Perfect Melon for Market or Home Gardens**

"Burrell's Gem" has a tough, thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about  $4\frac{1}{2}$  inches in diameter by 6 inches long, flesh of a reddish orange: very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

**LARGE YELLOW CANTALOUP**

Early and productive; flesh salmon color, rich, sweet. Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.25

**CULTURE**—Plant in hills four to six feet apart each way, after danger of frost is past and ground is warm; enrich well with well-rotted manure and plant the seeds just under the surface, not too deep. One ounce to fifty hills; two or three pounds per acre.

Melons thrive best on warm, light soils, but good crops are obtained on heavy ground if it is rich and well drained; in cultivating, hill up by drawing the soil toward the plant. Use Bug Death, lime, slug shot or land plaster for destroying insects.

**RUSTLESS****ROCKY FORD CANTALOUPE**

This new melon, the highest development of the "Rocky Ford" type, has light green flesh which is very deep, rich and delicious, the quality being unsurpassed. It is solidly netted, thrifty vigorous, rust resistant and a continuous bearer until frost.

Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.65

**SMALL GREEN NUTMEG**

A variety ripening early. Fresh, green, fine and sweet. Superior for the early market, or family garden, and a favorite for hotels and restaurants.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**ROCKY FORD OR NETTED GEM**

The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and highly flavored. The fruit is wonderfully uniform in shape and quality. A favorite with market gardeners everywhere.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**WATERMELONS**

**CULTURE**—Watermelons thrive best on light, well-drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be eight feet apart each way and with well rotted manure thoroughly worked into each hill. One ounce of seed will plant thirty hills, two to three pounds per acre. Thin to two or three plants per hill.

**TOM WATSON**

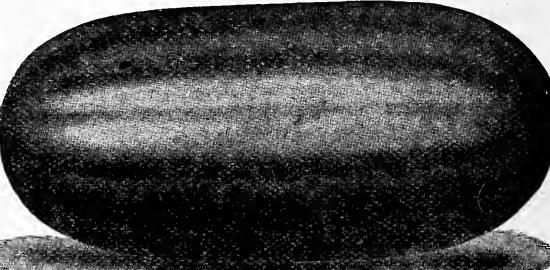
This excellent new melon is of elongated form, averaging 18 to 24 inches in length, 10 to 12 inches in diameter, has a thin, dark green rind and deep red flesh; crisp and sugary, with a lusciousness and distinctive flavor that makes it one of the finest melons ever produced; is hardy, early and stands handling and long shipment. We consider it a valuable market or home variety.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**HALBERT HONEY WATERMELON**

This superb Melon is a great improvement over the well-known "Kleckley's Sweet," as it fully equals it in delicious flavor and crispness, is more uniform in outline, darker in color, more vigorous and productive, and will ripen perfectly in the cooler sections where other varieties fail. The average length is eighteen to twenty inches, both ends being blunt and fully rounded out. The rich, dark glossy green, the thin rind and the bright crimson flesh make the new "Halbert Honey" the most attractive watermelon.

Pkt 7½c—oz 15c—¼ lb 30c—lb \$1.00

**SWEET HEART**

Good shipper. Vine vigorous and productive, ripening its fruit early. Fruit large, oval, very heavy, uniformly mottled dark and very light green; rind thin, but firm; flesh bright red, firm, solid, but very tender, melting and sweet. Fruit retains its good quality for a long time after ripening. Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**KLECKLEY'S SWEET, or MONTE CRISTO**

A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; oval; color dark, mottled green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red; exceedingly sweet and tender.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

**CITRON**

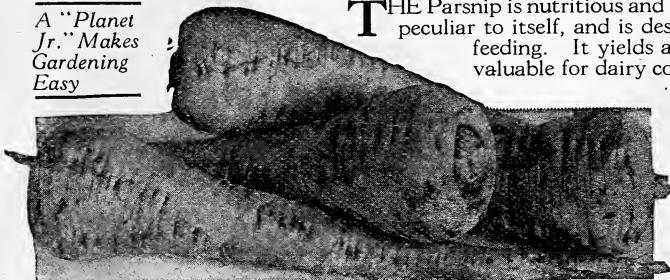
Grown for preserving and pickling.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.15

# PARSNIPS

A "Planet Jr." Makes  
Gardening Easy

**T**HE Parsnip is nutritious and wholesome, with a sugary sweetness peculiar to itself, and is desirable both for the table and stock feeding. It yields a large crop, and is said to be more valuable for dairy cows than either the carrot or turnip.



## HOLLOW CROWN OR LONG WHITE

Root very long, white, smooth, tender, sugary, and of most excellent flavor. Very hardy; will keep through the Winter without protection.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

**CULTURE**—As the seed germinates very slowly, sow as early in Spring as possible, in drills fifteen inches apart on deeply cultivated, rich, loamy soil. Keep clear of weeds and thin to three or four inches apart. The roots of the parsnip are improved by freezing.

## EARLY HALF LONG

Ready in 90 days. Medium sized, easily dug, has a fine rich flavor—good for home gardeners.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

# PARSLEY

## PLAIN

Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring or they may be dried crisp, rubbed to a powder and kept in bottles until needed.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

## EXTRA DOUBLE-CURLED

A fine, free growing, but not large variety. The plants bear a great number of leaves, which are so abundant and so finely curled that they resemble a bunch of moss.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

## TURNIP-ROOTED OR HAMBURG

The root, which resembles a small turnip, is the edible portion of this variety. Extensively grown and used for flavoring soups, etc.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

# PEPPER

Sow the seeds early in hotbeds; or later, when the weather becomes warm, in open beds. When two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart and a foot apart in the rows. Guano and hen manure are excellent fertilizers and will greatly increase the yield.

**NEW PERFECTION PEPPER**—Perfection is well named, as these perfect peppers are unequalled for quality and sweetness, are large, smooth, with flesh 3 times as thick as in other varieties, and the skin can be slipped off by heating or boiling a little, or you can pare them like you would an apple. Growth is vigorous. Yield is heavy and continuous, bearing until frost.

Pkt 15c—oz 75c

**RUBY KING**—Very large, sweet and mild; bright scarlet.

**LARGE BELL, or BULL NOSE**—Large, mild, thick fleshed variety. One of the best for stuffed pickles...

**CAYENNE**—Pods long; bright red; very pungent and used very largely with pickles when green.....

**CHILI**—Pods small and pointed; brilliant scarlet; very pungent when ripe .....

Pkt.	Oz.
10c	75c



# OKRA OR GUMBO

## IMPROVED DWARF GREEN

Very early, with long, green, slender pods.

Pkt 7½c—oz 15c—¼ lb 30c—lb 85c

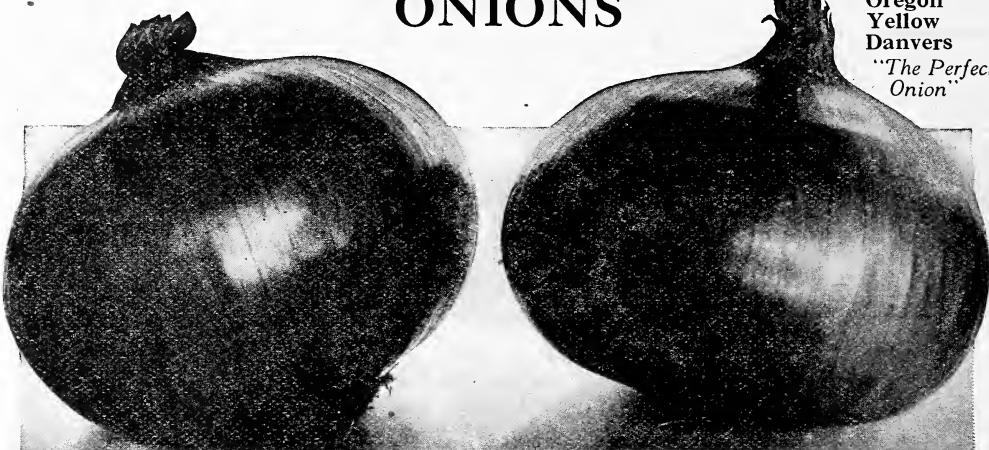
## WHITE VELVET

The pods are smooth or very slightly ribbed, large, remain tender a long time.

Pkt 7½c—oz 15c—¼ lb 30c—lb 85c



# ONIONS



P. S. Co.'s  
Oregon  
Yellow  
Danvers  
*"The Perfect  
Onion"*

**W**E are large growers of Onion Seeds and Sets, and for years have been specializing on varieties that attain their greatest perfection in the Northwest and believe in our "OREGON YELLOW DANVERS" we have the finest type of Danver Onion ever offered, and recommend it to all commercial growers.

**CULTURE**—For the best results in Onion growing, the soil should be deep and rich; bottom land of rather loose texture being preferred—(beaverdam soil is best.)

Sow  $2\frac{1}{2}$  or 3 lbs. of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer such as our special Onion Fertilizer, or manure supplemented with Bone Meal, Muriate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown. Hardwood ashes may take the place of the Muriate of Potash.

Thorough clean cultivation and thinning during the growing season is necessary.

In the Fall the tops of the Onions will naturally fall to the ground and shrivel up and the roots let go their grip on the soil, then the Onions should be lifted and allowed to dry off for a day or two before storing away. If the weather remains too wet to dry off in the fields, the Onions may be put under open sheds for a while where there is a good circulation of air.

In case the tops do not die off naturally, they may be broken down and so cause the bulbs to ripen quicker, but such Onions will not make good keeping bulbs, and should be disposed of as soon as possible.

To be sure of a good crop, sow none but the best of seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price.

## Portland Seed Co.'s Oregon Yellow Danvers

This is the variety generally planted in the Northwest. The largest crops of onions and the best keepers, bringing the highest prices on the Pacific Coast markets are the Oregon Yellow Danvers. The bulbs are uniformly large, of a half-globe in shape, with small necks, and as a market or table onion, can not be excelled. Our seed is grown specially for us by the best onion seed growers in Oregon. No onion grower can afford to plant anything inferior when such seed can be obtained.

An ounce of seed should drill 150 feet—3 to 4 lbs. per acre. If you contemplate a large planting, write us.

### AUSTRALIAN BROWN

This onion resembles the Oregon "Yellow Danvers" in general appearance, but has a clear amber-brown skin that attracts buyers. It matures early, ripens uniformly, and will keep in good condition longer than any other onion. For late sowing and when necessary to replant, Australian Brown heads the list.

Pkt 7½c—oz 25c—¼ lb 70c—lb \$2.25

### YELLOW GLOBE DANVERS

A very handsome, round or globe-shaped variety of large size, with thin, yellowish skin, white flesh, fine grained, mild, very firm, and the best of keepers. It ripens early.

Pkt 7½c—oz 25c—¼ lb 80c—lb \$2.75

### "BUNCHING" ONION

This variety is especially useful to market gardeners for producing an attractive "green onion." The young stalks are crisp and mild, attaining a good size before the bulb forms.

Pkt 7½c—oz 35c—¼ lb \$1.15—lb \$4.00

### LARGE RED WETHERSFIELD

A standard variety; one of the most productive kinds, even in poor soil. Its good keeping qualities render it one of the best for shipping.

Pkt 7½c—oz 25c—¼ lb 75c—lb \$2.50



## Well Known and Popular Onions

	Pkt.	Oz.	1/4 lb.	Lb.
<b>YELLOW FLAT DANVERS.</b> —Largely planted. Flesh fine grained; mild; white; good keeper.....	7½c	25c	70c	\$2.25
<b>QUEEN</b> —If sown thickly, produces small, very firm bulbs, the best of all for pickling; if given more room, matures an excellent onion, that will keep all Winter.....	7½c	40c	\$1.20	\$4.00
<b>WHITE PORTUGAL OR SILVER SKIN.</b> —Skin and flesh pure white; mild flavor and flat shape; grown largely for sets.....	7½c	40c	\$1.20	\$4.00

## Onion Sets—Pound Prices Postpaid

### BOTTOM ONION SETS

Small onions grown from seed that has been sown too thickly to attain a large size. The small onions (about  $\frac{1}{2}$  inch in diameter) thus obtained are planted out and are ready in a short time to pull as green onions for the table or bunched for the market. If left to stand they make ripe onions of the best quality, and come to maturity some six weeks earlier than a crop grown directly from the seed. **Per lb 30c**

For Garlic see page 15

### TOP SETS

Produced in clusters.

Per lb 35c

### SHALLOTS

Valuable for bunching or for an early crop. The smallest sets make fine bulbs of good size, while the larger ones produce a cluster of small to medium-sized bulbs. Light brown skin; mild, white flesh.

Per lb 30c

### BOTTOM MULTIPLIER

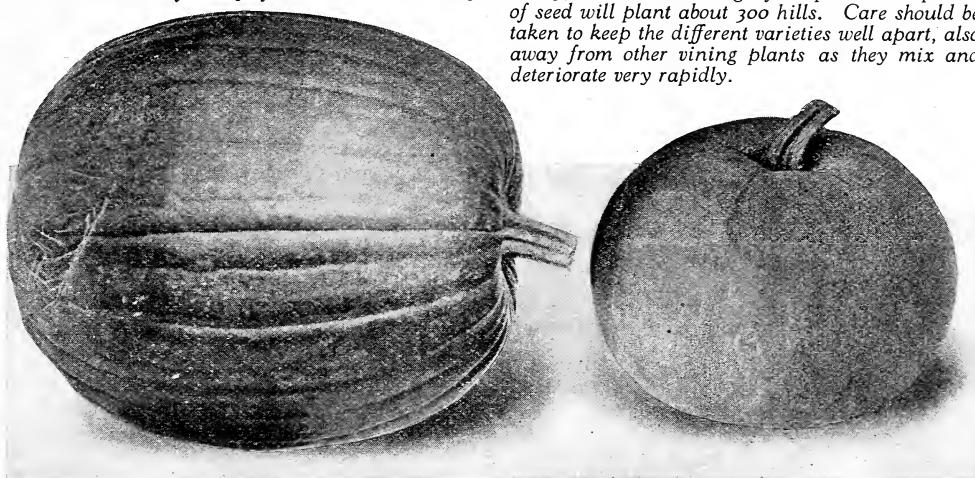
Potato Onion Sets.

Per lb 30c

## Use DIAMOND ONION FERTILIZER, 1,000 lbs. per acre

## PUMPKIN

**CULTURE**—Pumpkins will grow on any good farm land, but their size and quality will depend on the culture and fertility of the soil. Plant early in May, in hills six to eight feet apart. One pound of seed will plant about 300 hills. Care should be taken to keep the different varieties well apart, also away from other vining plants as they mix and deteriorate very rapidly.



Sweet or Sugar and Winter Luxury are good Pie Pumpkins

### SWEET OR SUGAR

A handsome and productive small pumpkin; skin, orange; flesh, deep yellow, fine grained, very sweet. This is the famous "New England Pie Pumpkin." Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### MAMMOTH TOURS

A productive French variety; grows to an enormous size. Pkt 7½c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.50

### LARGE YELLOW OR CONNECTICUT FIELD

Large, round; deep, glossy yellow. Vines vigorous and very productive; good keeper. Grown extensively for stock feeding.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.00

### WINTER LUXURY

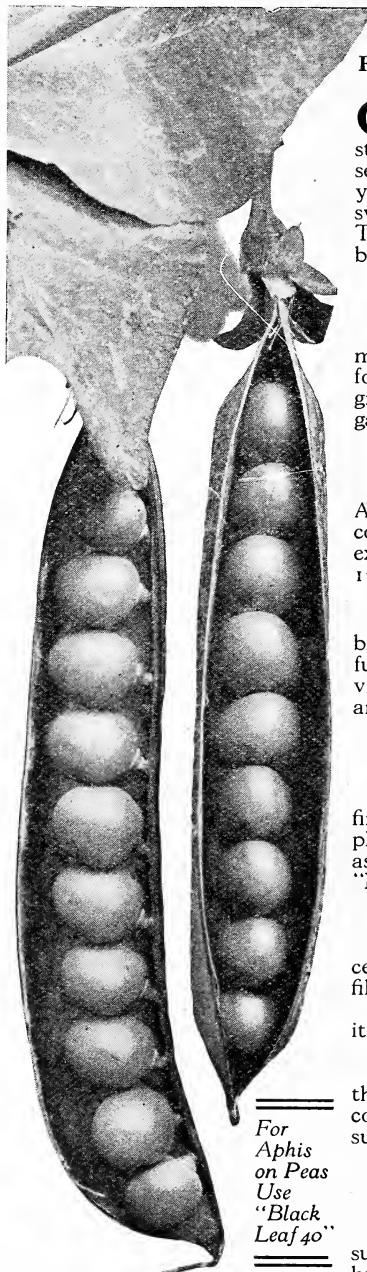
The best flavored pie pumpkin grown; enormously productive; excellent keeper; medium size; color, golden-russet, finely netted; flesh, deep golden, sweet, tender and very thick; none better.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 35c—lb \$1.25

### GIANT OF ALL "King of Mammoths"

This colossal Pumpkin is almost a globe in shape. The skin is of a beautiful, rich golden yellow, flesh firm, fine grained and deep yellow, sweet flavored, very thick and of excellent quality for so mammoth a variety. These Pumpkins attain an enormous size and will carry away prizes at your county fairs.

Large pkt 10c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75



For  
Aphis  
on Peas  
Use  
"Black  
Leaf 40"

#### IMPROVED STRATAGEM

One of the best of the large podded peas; the pods are of immense size filled with large, dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky with very broad, light green leaves, and bearing an abundance of large, handsome pods.

Pkt 15c—lb 30c—10 lbs \$2.75

## GARDEN PEAS

"Diamond Quality." Selected Hand Picked.  
For single lbs. by mail add 10c postage—Larger lots at  
parcel post rates. Pkts. are postpaid.

**GARDEN PEAS** are one of the most important crops, and we have spared no effort to select and improve the best strains of the most profitable and satisfactory varieties. These selected strains, grown under our direct supervision for many years, will give you the biggest yield and the handsomest, sweetest, best flavored Peas for early market or home garden. The varieties offered have proved by growing tests to be the best of their kind and class.

### Extra Early Peas

#### ALASKA OR EARLIEST OF ALL

A smooth, blue pea, of even, vigorous, growth and extra early maturity. Vines two to three feet high, unbranched, bearing four to seven long pods, which are filled with medium-sized bright green peas of excellent flavor. A great favorite with our market gardeners for Fall or early Spring planting.

Pkt 15c—lb 25c—10 lbs \$2.35

#### AMERICAN WONDER

One of the most popular and best of the early wrinkled sorts. A great favorite for family use. Has stout, branching vines, covered with well-filled pods containing seven or eight large, exceedingly sweet, tender and well-flavored peas. Height 10 to 12 inches.

Pkt 15c—lb 35c—10 lbs \$3.00

#### GRADUS

This extra early, wrinkled pea bears pods of large size and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; growth, vigorous and healthy; vines  $2\frac{1}{2}$  feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time.

Pkt 15c—lb 30c—10 lbs \$2.75

#### LITTLE MARVEL

##### A Splendid New Dwarf Pea for Home or Market

The dwarf, bushy vines averaging 15 inches are loaded with firm, square-ended pods  $2\frac{1}{2}$  to 3 inches long, tightly filled with plump, luscious, deep green peas. "Little Marvel" is as early as "American Wonder," fully equals the superb quality of "Nott's Excelsior" and far outyields these two popular sorts.

Pkt 15c—lb 35c

#### LAXTONIAN

A new, early, dwarf, robust, large podded pea of superior excellence; growth averaging 16 inches. The large pods are well filled, holding 8 to 10 peas.

"Laxtonian" is so highly recommended that you should give it a trial.

Pkt 15c—lb 40c

#### PREMIUM GEM

One of the earliest dwarf varieties, coming in a little later than the "American Wonder;" grows taller, much more productive and continues in bearing longer. The quality of the pea is very superior. Height, 15 inches. Pkt 15c—lb 30c—10 lbs \$2.75

## Main Crop Varieties

#### TELEPHONE—Tall

##### A Great Favorite With Our Market Gardeners

Immensely productive, of the finest quality and excellent, sugary flavor; vines strong; pods are of large size, filled with large, luscious peas; height four feet. Pkt 15c—lb 30c—10 lbs \$2.75

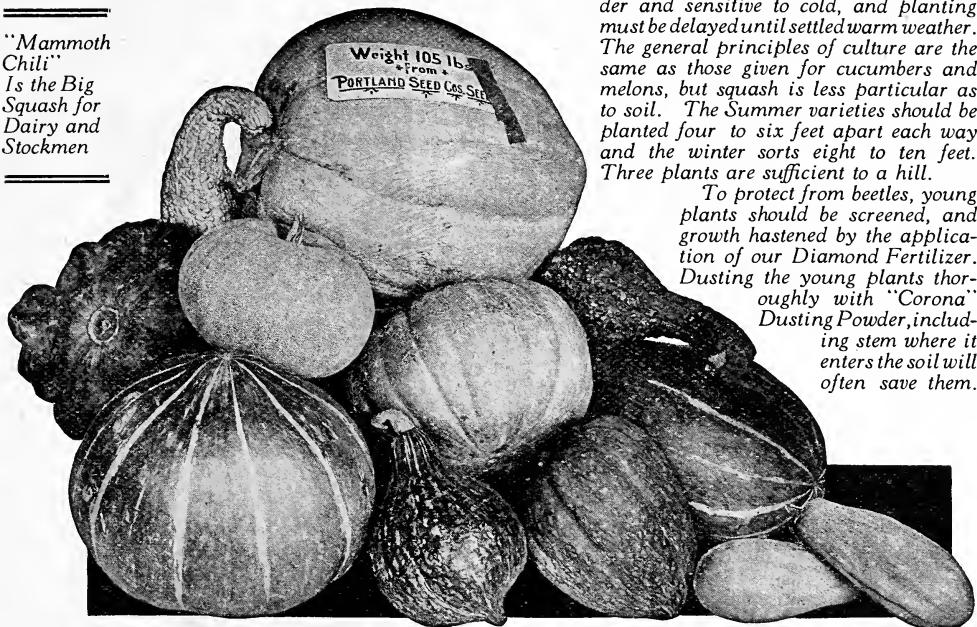
#### YORKSHIRE HERO

One of the largest, sweet, wrinkled kinds; vines strong and spreading; pods of good size and well filled; much in use, and has enjoyed a long popularity; medium late; bears a long time; height,  $2\frac{1}{2}$  feet.

Pkt 15c—lb 30c—10 lbs \$2.75

**"Diamond Quality" SQUASH**

"Mammoth Chili" Is the Big Squash for Dairy and Stockmen



**Summer Varieties**

**MAMMOTH WHITE BUSH SCALLOP**

The best Summer sort for the market; very productive and of good size.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.25

**ENGLISH VEGETABLE MARROW**

Oblong, dull yellow skin, very prolific and of finest table quality.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

**MAMMOTH SUMMER CROOKNECK**

Early, prolific, solid, curved neck; skin yellow, thin, hard and warty; flesh tender and of good quality. Twice as large as the ordinary Crook-neck and several days earlier.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.25

**Winter Varieties**

**TRUE HUBBARD**

The best seller and most popular variety on our list. Rind dark green, warty and very hard. Flesh light orange, very dry, sweet and rich flavored. Has no superior. Keeps perfectly through the Winter.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

**GOLDEN HUBBARD**

The same in size, shape and quality as the well known Hubbard Squash, except that it is a bright red or golden color, and somewhat earlier. It is also a long keeper. One of the very best Fall and Winter sorts yet introduced. Maturing before the frosts; is vigorous and wonderfully productive. Pkt 7½c—oz 15c—¼ lb 50c—lb \$1.65

**BOSTON MARROW**

Skin yellowish, very thin; flesh dry and fine grained; of unsurpassed flavor.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

**MAMMOTH CHILI**

The largest of all Squashes, growing to an enormous size, often weighing over 200 pounds, while its rich, fine flavored flesh insures its value for all purposes. Its size makes it valuable for stock feeding. Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

**SIBLEY OR PIKE'S PEAK**

Shell smooth, thin and of a pale green color; the flesh is thick, solid, deep orange color; very dry, fine grained with a delicate flavor.

Pkt 7½c—oz 15c—¼ lb 50c—lb \$1.65

**TOBACCO**

**CULTURE**—Sow the seed thinly in beds, as early as they can be well prepared. Cultivate thoroughly, transplanting when six inches high to rows four feet apart each way.

**CONNECTICUT SEED LEAF**

Hardy, and the best adapted to cool localities.

Pkt 10c—oz 40c

**HAVANA**

Of fine texture and delicate flavor.

Pkt 10c—oz 50c

# RADISHES

**CULTURE**—To secure Radishes with crisp, tender flesh, grow them quickly in rich, loose soil, and gather before reaching full size. Our Radish Seed is strictly of the finest grade, being grown from carefully selected roots. Frequent planting should be made for succession, so that a supply of fresh, tender Radishes in the finest condition may be had at all times.

## EARLY CRIMSON GIANT

The Largest Early Scarlet Turnip-Shaped Radish.

A new, early Radish, double the size of any of the turnip-shaped type, but, notwithstanding its immense size, **does not get hollow and pithy**. The flesh is a sparkling white, solid, crisp, juicy and of the **mildest flavor**. The shape of bulb varies from round to almost oval, but the bright deep crimson color of skin remains quite constant. Excellent for both forcing and open ground. Pkt 10c—oz 20c— $\frac{1}{4}$  lb 50c—lb \$1.75

## EARLY SCARLET TURNIP

A small, round, red turnip-shaped Radish, with small top and of very quick growth; very early; rich color and crisp, tender flesh.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## EARLY SCARLET TURNIP—White Tipped

A beautiful variety; deep scarlet with white tip. Very early. Has a small top, and may be planted closely. Flesh crisp, tender and sweet. Cannot fail to give satisfaction as a forcing Radish. Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## WHITE ICICLE

This superb Radish is the finest and longest of the very early, pure white varieties. Planted in the Spring, is ready for use in twenty to twenty-five days; their long, slender form and pure, paper-white skin are most attractive when bunched for market. This Radish is not only crisp and tender when young but also **retains these qualities until the roots attain large size**; is excellently adapted for forcing purposes or successive sowing in the open ground and gives a continuous supply of tender, crisp Radishes for the table or market throughout the season.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## EARLY LONG SCARLET, SHORT TOP

This bright scarlet, small topped sort is uniformly straight, smooth, brittle and crisp, and is an excellent sort for private gardens or market use. Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## LONG SCARLET, WHITE TIPPED

This is the brightest and handsomest colored Scarlet Radish known. The lower third of the root is snow white; very attractive. Extra early and flesh very tender. Valuable for forcing or open ground.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## FRENCH BREAKFAST OR HALF LONG

Medium size, quick growth, crisp and tender; lower end and taproot white.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## LADY FINGER, OR WHITE VIENNA

Of rapid growth and beautiful shape. Skin and flesh snow-white; very juicy, firm, crisp and tender; the finest of Long White Radishes.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## WHITE STRASBURG

One of the best large Summer sorts. It covers a long season, as it is good when quite small. The roots are long, very white, crisp and tender.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

White  
Icicle



## EARLY SNOWBALL

Grand improvement on the White Box or White Turnip Radish, so popular for several years. Handsome in shape, very early, and has but few leaves, is of a clear white color, solid, juicy, crisp, tender and unsurpassed in flavor. A good sort for forcing.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## IMPROVED CHARTIER

Roots long, tapering, and attaining a very large size. Of rapid growth; remains crisp and tender till fully grown. Color, scarlet above; shading into white at the tip. Flesh white and mild flavored. Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

## CINCINNATI MARKET

A superior strain of long scarlet, an early, rapid grower of a deep crimson color, so clear and brittle as to be almost transparent. Keeps fresh and stands shipment—a fine market radish.

Pkt 7½c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50



# Radishes (*Continued*)

## Winter Radishes

### CALIFORNIA MAMMOTH WHITE CHINA

This is the largest of all radishes. Roots grow ten to twelve inches long and are solid, tender and crisp. Keeps well through Winter.

Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.25

### BLACK SPANISH LONG

Standard Winter sort; has good flavor and keeps well. Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

### CHINA ROSE WINTER

One of the best Fall and Winter varieties; a favorite with market gardeners, bright rose color; flesh white, firm and of superior quality.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

### BLACK SPANISH ROUND

Same as long, except shape.

Pkt 7½c—oz 15c—¼ lb 40c—lb \$1.35

## SPINACH

This is an important gardener's crop, of easy culture. For Spring and Summer use, sow either broadcast or in drills one foot apart and one inch deep, as early as the ground can be worked, and every two weeks for a succession.

### SAVOY LEAVED—BLOOMSDALE

Very early; of upright growth; leaves pointed. Plant in the Autumn for Spring use; grows quickly. Pkt 7½c—oz 15c—¼ lb 35c—lb \$1.00

### NEW ZEALAND

A good summer variety, as when once established by early planting resists heat. Leaves soft, thick and fleshy. Differs in appearance from other varieties but is prepared in the same manner. Pkt 10c—oz 40c—¼ lb \$1.25—lb \$4.00

### PRICKLY WINTER

Hardest variety; must be sown in the Fall; seed prickly; leaves long, pointed, thick and succulent. Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.60

### IMPROVED THICK LEAVED

Variety which grows very rapidly, forming a cluster of large, very thick, slightly savoyed leaves of fine color, and quality when cooked. Best for market gardeners.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

## SALSIFY or Vegetable Oyster

Salsify is a nutritious and wholesome vegetable, having the appearance of a small parsnip; in flavor closely resembling oysters, for which it is, in that respect, a good substitute. It is rapidly coming into more general use.

**CULTURE**—Sow early in Spring, in drills a foot apart, and when two or three inches high thin out to three or four inches. Its general culture is the same as that recommended for carrots. The roots are perfectly hardy and may remain in the ground during Winter, or may be stored in dry earth or sand.

**MAMMOTH SANDWICH ISLAND**—The leading variety; produces a large crop of straight, smooth roots.

Pkt 10c—oz 30c—¼ lb 85c—lb \$3.00

## TURNIPS—Ruta Baga or Swede

FOR feeding stock in Fall and Winter there is nothing superior to Turnips or Ruta Bagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We can not too earnestly recommend farmers to increase their sowings largely, for the crop will prove profitable.

### DANISH PURPLE TOP

#### Bangholm Pajbjerg

This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 49 tons per acre. In shape is a little more elongated than the Globe types. This variety is recommended as the best of its class. Pkt 7½c—oz 20c—¼ lb 65c—lb \$2.25

### SKIRVING'S

Enormously productive; flesh yellow, solid and sweet. One of the best for field culture.

Pkt 7½c—oz 20c—¼ lb 65c—lb \$2.25

### WHITE SWEET RUSSIAN

This variety is most excellent, either for table or stock. It grows to a very large size; flesh white, solid, of a firm texture, sweet and rich; an excellent keeper.

Pkt 7½c—oz 20c—¼ lb 65c—lb \$2.25

### IMPROVED AMERICAN PURPLE TOP

The leading standard variety, being very distinct in type, attaining a wonderfully large size; immense yielder. The flesh is very firm, superior in every way, valuable alike for all purposes.

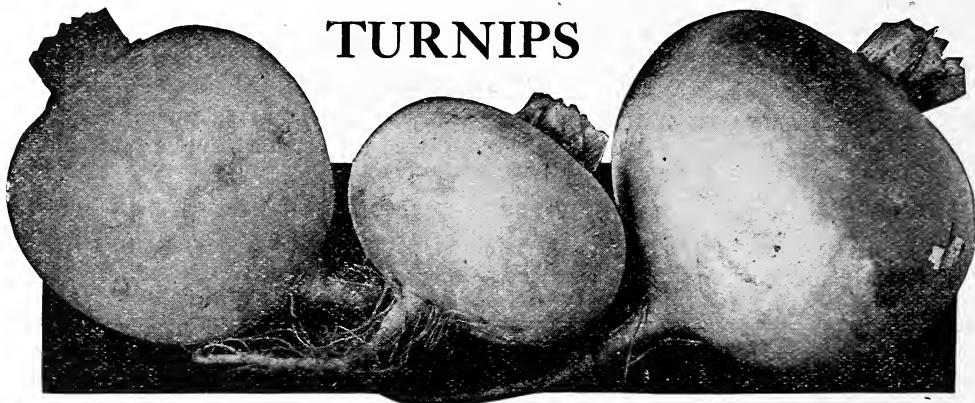
Pkt 7½c—oz 20c—¼ lb 65c—lb \$2.25

## Cut Worm Food

Protect Tomatoes, Cabbage, Melons, Cucumbers and Other Plants—easily applied—inexpensive. Price, 1-lb. pkg., 25c



# TURNIPS



Orange Jelly

White Milan

P. T. White Globe

**CULTURE**—For early use sow the small sorts as soon as the ground can be worked in the Spring, in drills fourteen inches apart. As the seed is very fine, it should be covered but slightly, except in very dry weather. For Fall and Winter use, sow the early kinds during July, August and September.

## Early Garden Turnips

### EARLY PURPLE TOP MILAN

This variety is ready for the table sooner after planting than any other yet introduced. Top small, erect, strap-leaved; bulb a deep purple above, white underneath; flesh white, firm and delicate. Pkt 7½c—oz 25c—¼ lb 80c—lb \$2.75

### EARLY WHITE MILAN

Same as Purple Top Milan, but pure white, sweet and tender; best early market variety.

Pkt 7½c—oz 20c—¼ lb 60c—lb \$2.00

### PURPLE TOP STRAP LEAF

A leading white-fleshed variety, and one of the best, either for the family, market garden or field crop. It is medium size, and produces a large crop. The flesh is firm, but tender, and of a superior rich buttery flavor. A good keeper.

Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.75

### EARLY WHITE FLAT DUTCH

One of the very best and most universally grown. Small, erect top, round, flat; flesh, white firm, but very tender and sweet. Of quick growth, it is soon ready for the table and keeps well. Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.75

### EARLY SNOWBALL

Early round turnip, maturing in seven weeks, is of perfect form, snowy whiteness, crisp, solid, fine flavor. Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.75

### ORANGE JELLY Or Robertson's Golden Ball

Undoubtedly one of the most delicate and sweetest yellow-fleshed turnips yet introduced. Not of large size, but firm, hard and most excellent flavor. Keeps well and is superior as a table variety. It is extensively used by market gardeners. Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.75

## Main Crop Turnips

### COWHORN

Sometimes called Long White. Slightly crooked. Pure white except a little shade of green at the top. Grows half out of the ground and is of very rapid growth. Is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in Oregon; an immense yielder. Pkt 7½c—oz 20c—¼ lb 65c—lb \$2.25.

### POMERANIAN WHITE GLOBE

One of the most productive kinds, and in good, rich soil, roots will frequently grow to 12 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves dark green and of strong growth. Pkt 7½c—oz 15c—¼ lb 45c  
lb \$1.50

### PURPLE TOP WHITE GLOBE

A large, globe-shaped variety; purple above the ground. It is handsome and of excellent quality; recommended both for family garden and field crop. Pkt 7½c—oz 20c—¼ lb 50c—lb \$1.75

### LARGE WHITE NORFOLK

A white variety, usually attaining a very large size. Extensively grown for stock feeding. The leaves are also used for greens. It is hardy and may remain in the ground all Winter. Yields very large crop. Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

### WHITE EGG

Is perfectly smooth, of a pure, clear white, growing half out of the ground, and at times to the size of a Ruta Baga, being a very choice kind for table use; of excellent flavor; sweet and mild. Pulls clean from the ground; thin, snow-white skin. Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50

### YELLOW ABERDEEN

Round, medium size; light yellow. Produces a large crop; is hardy and keeps well; flesh very firm but tender and sweet. A great favorite with the dairymen.

Pkt 7½c—oz 15c—¼ lb 45c—lb \$1.50



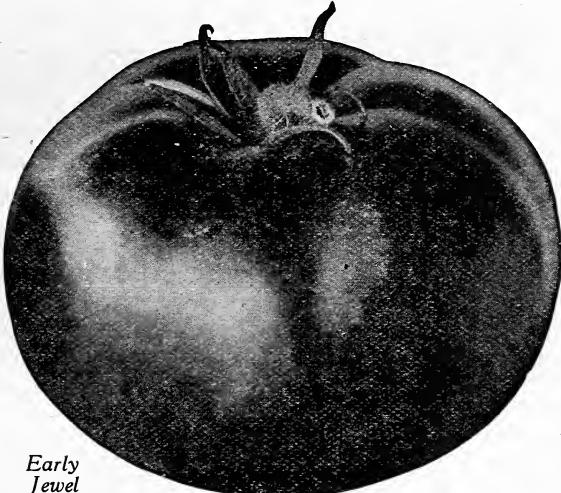
For RUTABAGAS—See Page 25.

# TOMATOES

THE NEWER types of hardy, prolific Tomatoes are better adapted to the cool Coast climate than the older sorts; and splendid crops are now being grown where heretofore it was thought Tomatoes would not thrive. A good plan is to try several varieties and find which is best suited to your special conditions.

**CULTURE**—Sow early in hotbeds, and as soon as they have four leaves transplant into shallow boxes. Harden off, and set out as soon as danger of frost is past. An ounce of seed will produce 3,000 to 4,000 plants.

If blight appears use "Bordeaux" but it is better to use as a preventive before blight strikes the plant, and as a control measure for flea beetles, spraying the under side of foliage.



Early Jewel

## CHALK'S EARLY JEWEL

Large, bright red, smooth, round fruits, very deep and colored evenly up to the stem; very solid, almost seedless and of the finest flavor.

Vines are vigorous, not subject to blight, and yield fully equal to or better than Earliana.

We recommend Chalk's Early Jewel as the very best early Tomato for either market or home gardens. Pkt. 10c—oz. 40c— $\frac{1}{4}$ lb. \$1.20

## BONNY BEST

Bonny Best has given splendid results wherever tried and being early, hardy and very productive can be recommended for outside planting wherever tomatoes can be grown. It is also a good forcing variety. Fruit smooth, round, slightly flattened, solid and of a bright scarlet. Quality excellent. Pkt 10c—oz 40c— $\frac{1}{4}$ lb \$1.20

## SPARK'S EARLIANA

### The Earliest Tomato

Of large, uniform size and beautiful red color. Ripens thoroughly all over, the stem end coloring up perfectly. Almost seedless and very solid. A most vigorous grower and heavy bearer, continuing until frost. Succeeds everywhere, and especially recommended for this Coast.

Pkt 10c—oz 40c— $\frac{1}{4}$ lb \$1.20

## WELL KNOWN STANDARD VARIETIES

	Pkt.	Oz.	$\frac{1}{4}$ lb.	
DWARF CHAMPION — Dwarf, upright growth; smooth, purple fruit . . . . .	10c	35c	\$1.00	
GOLDEN QUEEN—This is a first-class, large, smooth, pure yellow tomato . . . . .	10c	35c	1.00	
LIVINGSTON'S BEAUTY—Large; good quality; deep red in color . . . . .	10c	35c	1.00	
LIVINGSTON'S FAVORITE—Excellent for general crop; bears heavily . . . . .	10c	35c	1.00	
ATLANTIC PRIZE—Early, large, smooth bright red . . . . .	10c	35c	1.00	
QUARTER CENTURY—Large, of superior quality, deep red . . . . .	10c	35c	1.00	
YELLOW PEAR—Small Pear Shaped, fine solid fruit, very hardy . . . . .	10c	50c	1.50	
HUSK TOMATO—(Ground Cherry)—Yields abundantly, makes fine preserves . . . . .	10c	50c	1.50	

## Tomato Plants

Fine, Healthy transplanted and pot grown plants — Safely Packed and Shipped to any point in the Northwest. See Plant Department.



**P**TATOES are of such great economic importance as a food, give quick, sure, cash returns and are so valuable in crop rotations that our experience as growers may be of interest and helpful to others at this critical time when there is a general awakening to the necessity for better cultural methods, standardization of crops and above all a systematic selection of seed.

Unfavorable growing conditions in many sections and the urgent necessity for food conservation have made it plain that some action must be taken to improve the quality and increase the average yield.

### IMPORTANCE OF SELECTION

Two potatoes of equal appearance selected from the bin or pile may not produce the same general results, for the reason that the tendency is to reproduce the characteristics of the hill instead of the individual tuber, hence the selection of one good potato from an otherwise poor hill will not give the results that a potato of the same general appearance from a good heavy yielding hill. Small potatoes as a rule come from poor hills, and if planted tend to produce small potatoes and poor hills.

For many years we have been growing Seed Potatoes by careful re-selection and, comparative tests in various sections, have shown that our select seed will produce larger crops and more uniform, salable tubers with average soil and culture and have proven profitable and satisfactory under the conditions for which they are recommended.

### Choosing the Best Variety

There is no one best potato but there are many excellent sorts some of which will prove more profitable and satisfactory for your purpose than others. In choosing a variety of potatoes consider your soil conditions, market requirements, climate and seasons, and history of available seed stock.

We have much valuable data that will be helpful to you in your selection that is free on request.

**To secure a ready market and increase your profits you should grow only the best standard sorts that are known to be suited to your soil and are in demand in your market.**

The following descriptions have been carefully written from our own experience, with the addition of notes on origin of varieties from Bulletins of the U. S. Dept. of Agriculture.

The illustrations are from our own photographs of average types.

### Growing Potatoes

You can grow potatoes under most average conditions of soil and climate, but for the big yields of shapely tubers that pay big profits it requires soil adapted to potato growing, good seed stock properly planted, and plenty of **cultivating at the right time**. You can make your soil fit by proper rotation and use of necessary fertilizers.

**SOIL REQUIREMENTS AND TREATMENT**—Good Potato soils—those that produce big yields of shapely tubers, having good table and keeping qualities—may be of several different types.

Clay loam, sandy or gravelly loam, silt, wet land and soils heavy in organic matter have all produced excellent potatoes. But only where the drainage is good and the soil well aerated and properly worked can best results be obtained. Given a soil of average fertility, drainage is of the utmost importance, next in order being the organic content in the form of humus to retain the moisture and in the case of heavy soils to improve their mechanical condition after proper drainage has been secured. A soil rich in organic matter not only conserves the necessary moisture for the growing crop but is less susceptible to the extreme changes of atmospheric temperatures that are often so unfavorable to growth and development.

 **POTATOES** are as sure and profitable a crop investment, and labor considered, as can be grown. And the varieties we offer (seed stock of our own growing), will produce the maximum yield of shapely salable tubers that will command the highest market prices. We can tell you the best varieties for your market and soil.

**THIS IS THE YEAR TO PLANT—ORDER EARLY**



## GROWING POTATOES (*Continued*)

**SOIL AND DISEASES**—It is generally recognized that certain soil types are favorable to certain of our common potato diseases and where it is possible to do so, advantage should be taken of this knowledge and extreme care used to prevent the introduction of certain diseases to soil conditions that are favorable to their development.

Rhizoctonia and Black Leg, as examples, develop more freely and cause more loss on heavy wet soils. Scab is more prevalent in soils having an alkaline re-action.

Rhizoctonia is favored by an acid or neutral soil, therefore the alkalinity or acidity of the soil influencing certain diseases can become a factor in their control. The use of lime, producing an alkaline re-action may increase the amount of Scab, while the plowing under of a soiling crop will increase the acidity of the soil and lessens Scab but makes conditions more favorable for the development of Rhizoctonia.

Barnyard manure, bone meal, wood ashes and some of the forms of potash salts are all conducive to Scab and if used should be applied the Season or Fall previous to planting.

**SEED TREATMENT**—Dipping either in a solution of Formaldehyde or one of Bi-Chloride of Mercury (Corrosive Sublimate) are the two methods generally recommended for treating seed potatoes, as follows:

Formaldehyde, 40% Commercial Solution.....	1 pint
Water.....	30 gallons

Soak the potatoes in this solution for two hours and spread out to dry. This treatment is effective against Scab but as it is not to be depended upon for Rhizoctonia, the Bi-chloride of Mercury solution is always recommended as it will do all that the Formaldehyde accomplishes and takes care of our most troublesome disease, Rhizoctonia. The Bi-chloride of Mercury solution is prepared as follows:

Bi-chloride of Mercury (Corrosive Sublimate).....	4 ounces
Water.....	30 gallons

Soak the potatoes in this solution from  $1\frac{1}{2}$  to 2 hours and dry before planting.

**SPECIAL NOTE**—In dissolving the corrosive sublimate use a small amount of hot water, about a gallon to the ounce, adding it to the cold water when it is dissolved as it will be impossible to get good results by attempting to mix the entire amount in cold water.

**WARNING**—The poisonous nature and corrosive action of this solution makes it necessary to use care in handling and to keep the treated potatoes from stock or poultry. Any that are not used should be burned or buried. Make the solution in a wooden or porcelain container as it will corrode metals and rapidly lose its strength.

Both of these solutions will lose strength through use or standing for any length of time and should be made up fresh and not more than four lots of potatoes dipped without renewing the solution. The dipping can be done in bags or crates but the potatoes should then be spread out to dry, care being taken not to re-infect them by using the same bags or containers or spreading them where they would again be in contact with untreated stock.

**GREENING**—After dipping, the seed should go through the process of greening, leaving them spread in the light and warmth when the light will cause them to assume a greenish color and sprouting will begin. Sprouts brought on in this way will be short and thick and the potato will awaken from its dormant condition and develop much more vigor and vitality than potatoes that are not so treated. The greening also is a big factor in eliminating fungus growth and diseases. Another very valuable result from greening is the time gained as the potatoes thus treated will germinate and develop very much earlier than they would otherwise.

**SPRAYING STORAGE HOUSES**—A storage house, cellar or bin should always be sprayed before putting the crop away. The following formulae being recommended—either one of which is easily prepared and applied by the use of any available sprayer or pump.

1 lb. Copper Sulphate to every 10 gals. of water.

The formaldehyde solution is 1 pt. to each gallon of water—either of these should prove satisfactory if thoroughly applied.

## Fertilizers Increase Yield and Profits

**\$16.50 invested in Commercial Fertilizers gave an increased profit of \$63.50 on one acre.**

Prof. L. P. Gilmore of the Monmouth Normal School, Monmouth, Oregon, reports an increase of 48 sacks per acre under irrigation and 43 sacks per acre under dry conditions by the use of 500 pounds per acre of P. S. Co.'s Vegetable Fertilizer, as follows:

Fertilized—Irrigated.....	219 sacks	Fertilized—Dry Farming.....	110 sacks
Not Fertilized—Irrigated.....	171 "	Not Fertilized—Dry Farming....	67 "

A very interesting point brought out by his experiments is the ratio of increase of the non-irrigated crop as compared to the increase under irrigation. The actual increase being about the same. These trials were carefully made and recorded, and demonstrate the great value of our fertilizers under all conditions.

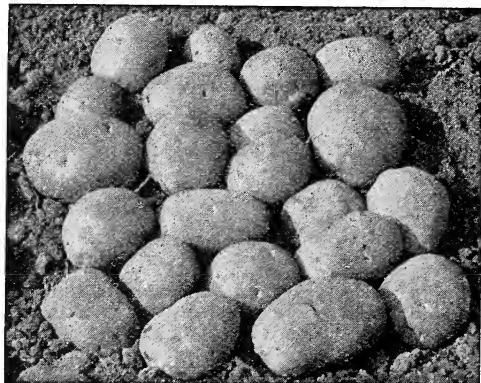


## EARLY VARIETIES

**Orders for less than 5 lbs not accepted for shipment.**

### Portland Seed Company's "Earliest of All"

CAN BE HAD READY FOR BAKING 9 WEEKS FROM PLANTING. FULLY MATURED IN 12 WEEKS



"Earliest of All"

**EARLY WHITE PRIZETAKER.** One of the finest of the early sorts, oblong in shape, 4 or 5 inches in length. Skin smooth and white with few eyes. Is of superior cooking quality, baked or boiled, cooking up dry and floury. White Prizetaker has important advantages over other early potatoes as its white skin, large size and good keeping qualities make it an ideal main crop variety. **Prices: Not Prepaid, 10 lbs or less, 5c lb—50 lbs, 4½c lb—100 lbs \$3.50.**

#### Scotch Rose:--

Reported to be a seedling of Early Rose, and considered to be superior to the parent stock through sections of New York and the New England states where it has been tried. Color a little deeper than Early Rose. The tubers average larger and of flattened oval to oblong type; of superior cooking quality, cooking up light, white and floury. A hardy, heavy yielding dependable variety.

**Prices: Not Prepaid, 10 lbs or less, 5c lb—50 lbs, 4½c lb—100 lbs \$3.50.**

ORIGINALLY a selection from Early Eureka introduced by Portland Seed Co., 1908, showing a marked difference in habit and greatly increased yield which years of careful re-selection have firmly fixed and improved. "Earliest of All" is a shallow eyed, white skinned variety of vigorous growth, not subject to blight or disease and does not make a second growth. The tubers are smoother and have fewer eyes than other varieties of this type. The white blossoms also easily distinguish it from Irish Cobbler, which has a purple bloom. Not affected by summer drouths owing to its quick growth and early maturity. Keeps as well as any late potato.

#### The earliest of all early potatoes.

**Prices: Not Prepaid, 10 lbs or less, 6c lb—50 lbs, 5c lb—100 lbs \$4.00.**

#### Early Rose:—

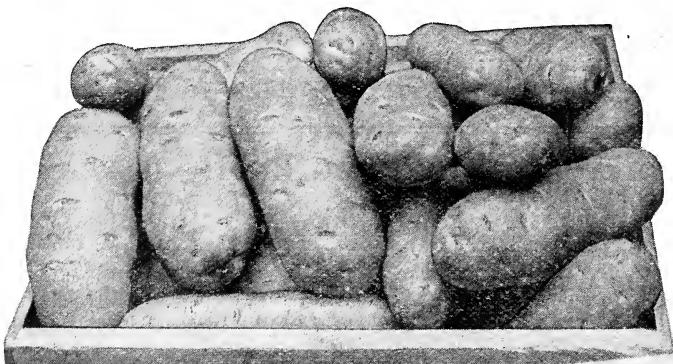
Strong, vigorous vines of medium height. Flowers white, rather abundant. Tubers quite smooth, elongated or oblong, stem and seed end rather blunt. Eyes shallow, but sharp and strongly marked; skin thin but tough. Flesh creamy white sometimes streaked with red, solid and brittle, rarely hollow. Our strain of this grand "old timer" is exceptionally good.

**Prices: Not Prepaid, 10 lbs or less, 5c lb—50 lbs, 4½c lb—100 lbs \$3.50.**

## MAIN CROP AND LATE VARIETIES

### PRIDE OF MULTNOMAH

*Excels in Yield and Table Quality*



**Prices: Not Prepaid, 10 lbs or less, 5c lb—50 lbs, 4½c lb—100 lbs \$3.50.**

#### PRIDE OF MULTNOMAH

Potato was introduced by us in 1909. Tubers are uniform in size of the ideal elongated type with smooth, thin white skin; eyes shallow; flesh snow white, of finest table quality; flowers white; vines medium large of bushy growth; withstands drought; and is blight and disease resistant to a remarkable degree.

Pride of Multnomah is the leader in its class, being superior in yield, uniformity and table quality—holding the record yield for the State of California from our Oregon grown seed—700 bushels of clean, uniform stock, the prize acre at P. P. E., San Francisco, 1915.

**GROWERS SHOULD PRACTICE A FOUR-YEAR ROTATION.** *Grain, Clover, Corn, Potatoes. Scab and Rhizoctonia are not so troublesome when corn follows clover before potatoes.*



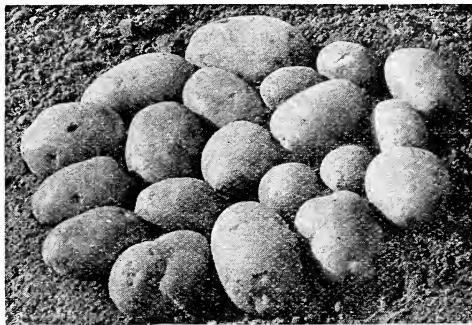
## MAIN CROP AND LATE VARIETIES (Continued)

Orders for less than 5 lbs not accepted for shipment.

### Producer:—

A large, smooth, oval, white potato with shallow eyes, of finest table quality, does not boil to pieces and has no superior baked. Is a hardy, vigorous grower, producing enormous yields and is especially valuable for dry or light soil, and has shown up better in our trials than any other new variety. Sample hills dug on overflowed river sediment averaged 4 lbs. 3 oz.—416 sacks of 120 lbs, each to the acre—without irrigation. *Producer* is our own introduction and gives promise of becoming the standard of its type in this market.

**Prices:** Not Prepaid, 10 lbs or less, 5c lb—  
50 lbs, 4½c lb—100 lbs \$3.50.

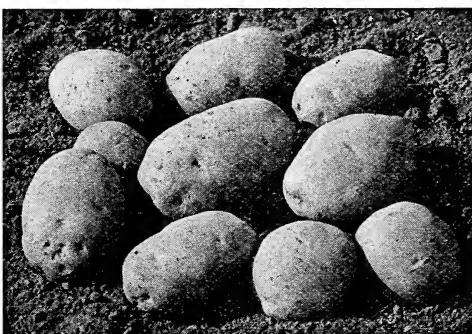


*Producer*

### Snow:—

A splendid early maturing main crop potato that gives a good yield on poor or light soil. Vines are luxuriant and dark green with heavy foliage, stems light green, flowers white, freely produced. Tubers large, oblong and slightly flattened, generally with blunt ends, base usually more or less notched. Skin creamy white more or less netted, flesh fine grained, flaky and of excellent quality; eyes shallow. Potatoes grow close together with few small ones.

**Prices:** Not Prepaid, 10 lbs or less, 5c lb—  
50 lbs, 4½c lb—100 lbs \$3.50.



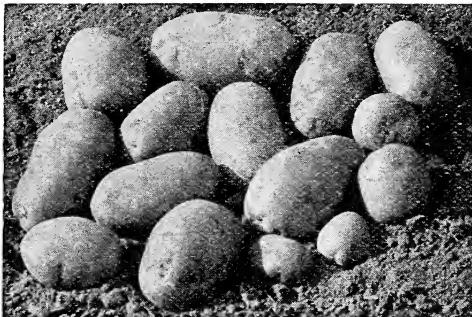
*"Snow"*

### White Rose (California):—

A standard market potato in sections of California, the shape being a flattened oval rather elongated, having few eyes and a beautiful creamy white skin. Abundant foliage and lavender flower—fading to light. Yields well, and although not an early maturing potato, it makes a vigorous, rapid growth and can be used quite early. We grow the Gold Medal strain.

**Note.**—The White Rose originating in Aroostook Co. Maine, is a different type of potato from the above, having the physical characteristics of the Early Rose and is a white flowered variety. To avoid confusion California has been added to the name to distinguish this variety.

**Prices:** Not Prepaid, 10 lbs or less, 5c lb—  
50 lbs, 4½c lb—100 lbs \$3.50.



*White Rose-California*

### Burbank:—

A standard commercial variety. Late and very productive. Skin nearly smooth. Eyes rather shallow. Tubers long and slightly flattened. Under proper selection it thrives equally as well now as at any time since its introduction. We offer a select true heavy yielding strain.

**Prices:** Not Prepaid, 10 lbs or less, 5c lb—  
50 lbs, 4½c lb—100 lbs \$3.50.

### American Wonder:—

One of the earliest and best main crop varieties. Strong grower of branching habit and great producer. Tubers white, large and uniform in size; elongated and slightly compressed. Blooms white; foliage rich dark green. Our stock is of exceptional quality.

**Prices:** Not Prepaid, 10 lbs or less, 5c lb—  
50 lbs, 4½c lb—100 lbs \$3.50.

WE GROW MANY VARIETIES OF POTATOES IN OUR TRIALS THAT ARE NOT CATALOGUED, and are prepared to grow seed potatoes to order, in car lots, from our own select stocks, or from seed stock furnished. *Special terms to Dealers and Commercial Growers.*



# HERB SEEDS--Sweet, Pot and Medicinal

Every garden should contain a collection of Herbs for flavoring and medicinal purposes. They are almost a household necessity; are easily grown, and many of them are very ornamental.

**CULTURE**—*Herbs in general delight in rich, mellow soil. Those marked with an (\*) are perennial, and when once planted in the garden may, with a little attention, be preserved for years. Sow the seeds early in the Spring in shallow drills, one foot apart. We offer some of the most useful and popular. They should be cut on a dry day, just before they come into full bloom, and tied in bunches and hung up or spread thinly on a floor where they can dry quickly. When dry and crisp, rub fine and bottle.*

## All the following Herbs, 10c per Packet.

- Anise**—Seeds have useful medicinal properties; also used for flavoring.
- \***Balm**—Used for culinary purposes and for making Balm Tea.
- Basil**—Used for seasoning soups, having a decided flavor of cloves.
- Borage**—Excellent for bees, flowers are also in request for garnishing.
- \***Chive**—Has mild onion flavor; grows in grass-like clumps; much used for flavoring.
- Coriander**—Seeds used in confections; leaves for soups and salads. Very aromatic.
- Caraway**—For flavoring, the seeds being used extensively by bakers and confectioners.
- \***Catnip**—(Cat Mint).
- Dill**—The flower heads and seeds are used in soups, stews and pickles; leaves have same flavor and can be used in like manner.
- \***Fennel**—For garnishing and fish sauce.
- Fenugreek**—For flavoring.
- Hyssop**—Used medicinally.
- \***Horehound**—Used medicinally as a cure for colds.
- \***Lavender**—By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc.
- Marjoram**—The sweet aromatic leaves in either a green or dry state are used for flavoring.
- \***Pennyroyal**—Used medicinally.
- \***Peppermint**—For flavoring.
- \***Rosemary**—Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil.
- \***Rue**—Leaves are used in medicine, also for roup in poultry.
- \***Sage**—The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea.
- Saffron**—Used for flavoring.
- Savory**—Summer. Used for flavoring.
- Savory**—Winter.
- Thyme**—Broadleaved, used in soup, stuffing and sauce.
- \***Wormwood**—Taken as a tonic in the form of tea.
- Tansy**—Used medicinally, as tea and bitters.

## Herb Seeds for Flavoring

- Anise**—Anise seed for flavoring.
- Coriander**—Coriander seed for flavoring.
- Poppy**—Seed used for flavoring.
- Mustard**—For flavoring and pickling.
- Celery**—For flavoring. See page 12.

Write for Prices on Flavoring Seeds as Market is Unsettled.

## Foreign Names of Herbs

A Stands for Annuals or those generally used for such. B For Biennials. P For Perennials.

ENGLISH	FRENCH	GERMAN	ITALIAN
A Anise	Anis	Anis	Anacio
P Balm	Mélisse-Citronelle	Citronnen-Melisse	Melissa
A Basil	Basilic grand	Basilikum	Basilice
A Borage	Bourrache	Boretsch	Boragine
A Caraway	Cumin des pres	Feld-kummel	Carvi
A Catnip	Cataire	Katzenminze	Cataria
A Coriander	Coriandre	Koriander	Coriandorio
A-B Dill	Aneth	Dill	Aneto
P Fennel, Sweet	Fenouil	Fenchel	Finocchio
A Fenugreek	Fenugrec	Bockshornsalmen	Foenum-graeciene
P Horehound	Marrube Blanc	Andorn Kraut	Marrubio
P Hyssop	Hysoppe	Isop	Issopo
P Lavender	Lavende	Lavendel	Lavanda
A-B-P Marjoram Sweet	Marjolaine	Majoran	Maggiorana
P Mint, Common	Menthe des Jardins	Munze	Menta
P Rosemary	Romarin	Rosmarin	Rosmarino
A Rue	Rue	Raute	Ruda
P Sage	Sauge	Salbei	Salvia
A Saffron	Safran	Safran	Zafferano
P Sorrel	Oseille	Sauerampfer	Acetosa
A Savory, Summer	Sarriette	Bohnenkraut	Santoregia
P Tansy	Tanaise	Gemeiner Rainforn	Atanasia
P Thyme	Thym	Thymian	Timo
P Wormwood	Absinthe	Wermuth	Assenzio

WE SUPPLY HERB PLANTS IN MOST VARIETIES IN SEASON. SEE PLANT DEPT.



# FIELD AND FARM SEEDS

**T**HREE are many varieties of grasses and forage plants offered by Eastern seedsmen (often under new names) that will not give profitable crops in our climate, and to avoid disappointment, we refer you to the following list, which has been carefully selected and contains the most desirable varieties for general and special purposes.

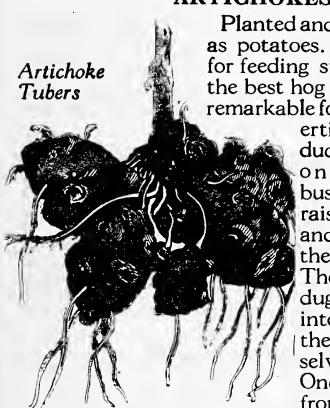
A careful reading of the following pages will give you much valuable information that has required years of observation and experimenting to obtain.

## IMPORTANT—Read Carefully

Clover, Grass and Field Seeds are subject to market changes, therefore we cannot print prices good for any length of time. When ready to buy, write us for special prices, stating quantity wanted; or send in your order at catalog prices. **We guarantee that we will give you full value for the money sent**, whether the price at the time you order be higher or lower, or if the difference is very great we will notify you before shipment.

 **Single pound prices include postage. 100 lb. PRICES are F.O.B. PORTLAND, and are SUBJECT to MARKET CHANGES. But—You will always get full value for money sent us. Write for prices on large quantities.**

*Artichoke  
Tubers*



### ARTICHOKE

Planted and cultivated same as potatoes. Of great value for feeding stock. They are the best hog feed known; are remarkable for fattening properties, great productiveness (over one thousand bushels having been raised on one acre) and ease with which they can be grown. They need not be dug. Turn the hogs into the field, and they will help themselves by rooting. One acre will keep from twenty to thirty hogs in condition from October until April, highly recommended for milch cows, increasing yield of milk and at the same time improving their condition. Plant ten bushels per acre.

**Note**—Tubers on hand from January to May.  
**Per lb postpaid 15c—F. O. B. Portland,  
100 lbs \$2.50.**

### BUCKWHEAT

**Buckwheat** is a valuable crop that can be easily grown wherever wheat will grow, producing a good yield even on light or poor soil and under favorable conditions is very profitable, being in big demand for milling—and is also the best "Bee pasture."

Sow 36 lbs. per acre in drills, 48 lbs. broadcast **COMMON—lb postpaid 20c—not prepaid  
100 lbs \$8.50.**

**SILVER HULL**—Of a light gray color, rounder than the common; has a thin husk; matures earlier and yields heavily. An excellent milling variety.

**Per lb postpaid 20c—not prepaid 100 lbs \$8.50**

**JAPANESE**—Ripens early—is hardy and yields the largest crops. The grains are extra large, dark brown, very thin hulled and makes the highest grade of flour.

**Per lb postpaid 20c—not prepaid 100 lbs \$8.50**

### FLAX SEED

We have a splendid lot of selected recleaned Western-grown Flax, new crop, large plump seed. **Per lb postpaid 20c—not prepaid 100 lbs \$12.50.**

*A Single Plant  
of Thousand  
Head Kale*



### COW OR THOUSAND HEAD KALE Plants in Season

The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government Stations. Cow Kale should be grown in the same manner as cabbage. Make the rows 4 feet, plants 3 feet apart in the row. Can be set as late as July. Write for full information on Planting and Feeding.

**A quarter of a pound of seed will produce enough Kale plants for one acre.**

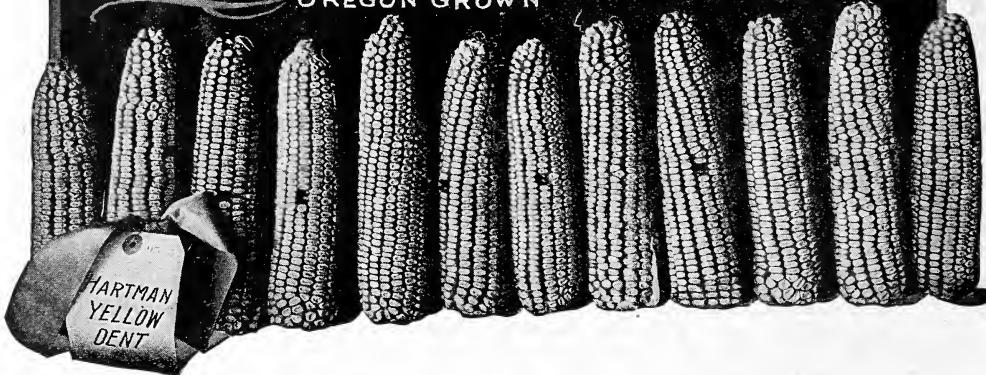
**Postpaid oz 10c— $\frac{1}{4}$  lb 30c—lb 90c**

**Remember ALL PRICES ARE SUBJECT TO MARKET CHANGES.  
You will always get your money's worth or we will quote on request.**



# FIELD CORN

OREGON GROWN

Corn is a profitable crop for grain,  
silo or fodder

SIXTY-THREE PER CENT of the feeding value of a matured corn plant is in the ear. Corn to mature properly must be adapted to the section where grown, requiring several seasons of intelligent care and selection.

Our Oregon Grown Corn being thoroughly acclimated will give splendid satisfaction under the conditions and for the purposes recommended—we have large stocks and can supply any amount at very reasonable prices.

**CULTURE**—Thorough preparation of the soil is necessary for best results, methods of culture being determined by the different conditions of soil, climate, moisture and previous crops. The ideal soil is a deep warm one with a little sand, well drained and with sufficient humus to hold the moisture.

Deep plowing is always necessary for best results, and the heavy soils on the West side of the Cascades will give best results from Fall plowing, repeating in the Spring before seeding time. A liberal amount of stable manure and thorough tillage will help to offset the cold nights. For best results when planted for grain, plant in hills 42 inches apart, allowing two stalks to the hill. For fodder or silo, three stalks, if the ground is rich.

For East of the Cascade Mountains—quoting "Farmer Smith"—"Where rainfall exceeds 12 inches and Corn is to follow Wheat, roll the stubble with corrugated roller right after harvest; then after first heavy rains, disc crossways of the rolling. If open weather, plow or disc thirty days later, allowing to lay in the rough until Spring. Ten loads of stable manure put on during the Winter or Fall will prove helpful. In the Spring when ground can be worked, disc and harrow every two weeks until May 1st, then plow deep, discing every day's plowing and harrow, roll or clod-crush to a fine well-packed surface. List 6 inches deep in 42-inch rows, kernels 12 to 14 inches apart in the rows. If Lister is not available, plant at bottom of 6-inch furrow made with a stubble plow. Five days after planting, harrow with slanting spike tooth harrow repeating every week until Corn is 4 to 6 inches high, then continue cultivating until in tassel."

#### REPORT OF NEW YORK EXPERIMENT STATION—ONE ACRE OF CORN

	Weight of Total Crop	Water	Dry Matter	Starch
July 30 (fully tasseled).....	9.0 tons	8.2 tons	.8 tons	122.2 lbs.
August 9 (fully silked).....	12.9 ..	11.3 ..	1.5 ..	491.3 ..
August 21 (kernels, watery to milk).....	16.3 ..	14.0 ..	2.3 ..	706.7 ..
September 7 (kernels glazing).....	16.1 ..	12.3 ..	3.6 ..	1735.0 ..
September 23 (ripe).....	14.2 ..	10.2 ..	4.0 ..	2852.9 ..

Other nutrients increase in amount in about the same proportion with the exception of protein, which reaches its maximum amount before maturity.

For silage cut when kernels are glazed and well dented at which time more than 50% of the feeding value is in the grain.

**For single pounds by mail add 10c postage. Larger lots at parcel post rates**

#### OREGON GROWN YELLOW DENT

Thoroughly acclimated seed that has given splendid returns in the Willamette Valley. Matures early and gives a good grain yield; is also good for silo.

**Price 1b 15c—10 lbs \$1.25**

#### HARTMAN YELLOW DENT CORN

"Hartman" is now considered a standard Dent Corn for grain west of the Cascade Mountains, and is also good for silo. Cob is small, ears medium to large.

**1 lb 15c—10 lbs \$1.25**

#### MINNESOTA KING (DENT)

Smallest cob and largest grain. The ears are uniformly well filled out. Golden yellow and a good yielder, being a safe corn to plant west of the Cascades.

**1 lb 15c—10 lbs \$1.25**

#### OREGON GROWN WHITE DENT

"Oregon White Dent" is a large handsome White Dent, extremely early and matures perfectly, and is the best White Dent Corn for Oregon and Washington.

**1 lb 15c—10 lbs \$1.25**

#### MINNESOTA No. 13 YELLOW DENT

Large ears, closely filled from end to end with bright yellow kernels. Has rather a thick cob and the shelled grains have a tendency to irregularity. "Minnesota No. 13" will average 7 feet high and being a rapid, vigorous grower, with heavy foliage, makes a fine fodder corn, and is especially recommended for ensilage west of the Mountains. Will mature in 90 days under favorable conditions.

**1 lb 15c—10 lbs \$1.25**

#### PRIDE OF THE NORTH YELLOW DENT

Pride of the North recommended for Eastern Oregon, Washington and Idaho, and our Oregon grown seed has given splendid results whenever conditions have been at all favorable, maturing early and yielding heavily, the foliage being luxuriant and of medium height. Good for silo.

**1 lb 15c—10 lbs \$1.25**

A good Corn Planter will save you time, insure a better stand and save seed. See index



## Field Corn (Continued)

**All sorts of field corn 10c per package; prices per 100 pounds on request**

### CHAMPION WHITE PEARL

A large, White Dent variety; very popular with our dairymen on account of the great amount of green feed it makes.

**1 lb 15c—10 lbs \$1.00**

**EARLY CANADA**—(Flint). An eight-rowed Yellow Flint Corn; early and very productive.

**KING PHILIP**—An early Red Flint Corn; well acclimated and well known.

**WHITE RICE**—Pop Corn. Best variety for popping corn.

**Write for Prices**

**Always remember that corn increases in food value and digestibility as it reaches the ripe stage—while other forage crops become more difficult of digestion and lose much of their food value as they ripen.**

### EMMER—*Triticum Dicoccum*

#### Often Mistakenly Listed as Speltz

Similar to barley in growth, but produces two grains in a spikelet. A comparatively new and profitable crop, yielding 50 to 100 bushels of grain, or four to six tons good hay per acre. Thrives well on poor soil, and dry weather seems not to affect it. After threshing, the straw makes good feed. Sow in Spring at rate of 75 to 100 pounds per acre.

Price 1b 15c postp'd; not prep'd 100 lbs \$4.75

### WHITE FLINT

Earlier than "Eight-Row Canada," and is to be preferred on account of its color, productiveness and very early ripening.

**1 lb 15c—10 lbs \$1.00**

Per lb. Per 10 lbs.

**.....15c \$1.00**

**.....15c 1.00**

**Write for Prices**

### SEED RYE

**SPRING**—This splendid variety is extremely hardy, yields heavily. **Per lb postpaid 15c**

**COMMON RYE**—Planted extensively in both Spring and Fall. **Per lb 15c postpaid**

**Write for prices in larger lots.**

### SUGAR CANE OR SORGHUM

**EARLY AMBER**—A valuable crop to grow for fodder or ensilage, as it furnishes an immense tonnage to the acre.

Price 25c 1b postp'd; not prep'd 10 lbs \$1.50

## THE NON-SACCHARINE SORGHUMS

**Wonderfully productive and of great value as a forage, ensilage or grain in warm dry sections**

The varieties here offered represent the best selections and are highly recommended. They are best drilled in—using 3 to 8 lbs. per acre, depending on variety and condition. Plant in the late Spring after the ground is warm. Cultivate often, throwing earth toward the plants.

### SUDAN GRASS

#### The great drouth resisting forage crop

Sudan Grass was introduced from Egypt in 1909 by the U. S. Dept. of Agriculture, and has given great promise of becoming a valuable addition to our forage grasses, especially in some sections. It is believed to be the original type of our cultivated sorghums. All stock relish it, and no harmful effects have followed where it has been fed. Under favorable conditions, it grows from 7 to 9 feet, having luxuriant foliage and small stems. While thriving under dry conditions, excessive moisture will not harm it but is easily damaged by frost. Where growing conditions are favorable the stubble makes excellent green pastureage. In the South three or four cuttings are not uncommon.

Price: 1 lb 40c postpaid—F. O. B. Portland  
10 lbs \$2.80—100 lbs \$27.00.

### KAFFIR CORN

An excellent fodder plant. Grows four to five feet high, upright stalk, with numerous large leaves. Greatly relished by cattle and horses. The seed crop is also heavy, sometimes yielding 60 bushels to the acre. It does best sown in drills three feet apart, six to eight pounds per acre.

**Write for prices**

### BROOM CORN—Dwarf Evergreen

Grows from 4 to 5 feet high and makes straw of finest quality, being almost, if not entirely, free from crooked brush. Per lb postpaid 25c

### Egyptian Corn

#### Also Called Jerusalem Corn or Dhoura

One of the non-saccharine sorghums, requiring the same growing conditions. Succeeds well in dry sections. Produces small heads on side shoots up to eight on a stalk, the seed is larger than Kaffir corn. Yield is heavy. Makes fine chicken feed. Plant three pounds per acre.

**WHITE per lb postp'd 20c; not prep'd 100 lbs. \$8.50**

### MILO MAIZE

This is one of the sorghums similar to Kaffir corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drouth resistant, and succeeds on alkali soil. Plant late when ground is warm, 3 to 6 pounds per acre.

Per lb postp'd 20c; not prep'd 100 lbs \$8.00

### FETERITA

This is the most recent of the non-saccharine sorghums to command the attention of "dry farmers" on account of its wonderful yield and drouth resistant qualities, being 20 to 40 days earlier than Kaffir corn, and has given immense crops in the driest seasons without having received a drop of rain. Makes splendid fodder as well as giving a good grain yield. Try Feterita. Per lb postp'd 25c; not prep'd 100 lbs \$10.00



# Farm and Field Seeds (Continued)

**Prices Subject to Change Without Notice. See Page 33**  
**Single Pound Prices Postpaid, for Larger Lots Add Postage at Zone Rates**

## LENTILS—French

The French Lentil excels as a food, is large, smooth, of a light even color and very attractive. It is also the heaviest yielding and most profitable variety to grow.

Lentils can be grown wherever peas or beans can be grown and are in big demand for export.  
**Lb postp'd 30c—F. O. B. Portland 10 lbs \$1.90**

## RAPE, DWARF ESSEX

One of the best forage plants, producing immense quantities of green feed when grass and other crops are dried up. Excellent pasture for all stock, and fine green feed for chickens. Thrives on all soils and is ready for use in six to eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips from May until September, or sow with grain. Use four pounds per acre in drills, eight pounds broadcast.

**Price Ib 25c postpaid. Freight or express  
10 lbs \$1.60.**

## FIELD PEAS

Field Peas are a very profitable crop and are grown here very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under. The dry peas make excellent hog-feed and are quite fattening. Sow, if alone, 120 pounds to the acre; if with other grain, 60 pounds.

**WHITE CANADIAN**—A leading kind; seed almost white; a heavy cropper.

**Per lb postp'd 20c—not prep'd 100 lbs \$9.00**

**BLUE PRUSSIAN**—Very much like the above, except in color. This variety is largely sold dried for soup peas. **Per lb postp'd 25c  
Not prep'd 100 lbs. 16.50**

## MILLETS

*Sow in April, May or June, 12 to 15 lbs. for seed, or 20 to 30 lbs. for hay per acre.*

**GERMAN OR GOLDEN**—An improved variety, yielding a larger crop of seed than the Common Millet. It is also taller than the Common and yields a heavier crop of hay.

**Per lb 20c postp'd—not prep'd 100 lbs \$9.50**

**HUNGARIAN**—A dwarf annual Millet. It is finer than the Common or German Millets, but produces a closer stand and yields almost as much per acre as the taller varieties. Superior for hay.

**Per lb 20c postp'd—not prep'd 100 lbs \$10.00**

**BROOM CORN MILLET**—Is somewhat variable in character and is divided into several varieties, one of which is sometimes called Hog Millet, as the seed is often used to feed hogs. All of this class are better adapted to produce seed than for pasture.

**Per lb 20c postp'd—not prep'd 100 lbs \$9.50**

## VETCHES OR TARES

### Oregon's Greatest Forage Plant

**COMMON VETCH**—(*Vicia Sativa*)—One of the best forage plants that can be grown on the Pacific Coast. Often called Fall Vetches. It furnishes an abundance of excellent feed, either green or cut and cured for hay. The seed should be mixed with an equal weight of some variety of wheat, oats or rye having a stiff straw, and the mixture sown at the rate of two bushels per acre. Vetches weigh 70 pounds per bushel. Sow in the Fall or early Spring.

**Per lb postp'd 20c—not prep'd 100 lbs \$11.00**

**WHITE SPRING OR PEARL VETCH**—White Pearl Vetch is coming into great favor and is being extensively used for Spring planting as splendid results can be had from sowings made as late as April. The yield being fully equal in every way to that obtainable from common vetch (*vicia sativa*) and of fully as great feeding value.

**Per lb postpaid 20c. Write for prices.**

**SAND, or Winter Vetches**—(*Vicia Villosa*)—This variety thrives on poor, arid, sandy soils. It is sown either in the Fall or early Spring, and is generally mixed with rye, which serves to support the plants. It grows to a height of three or four feet, and can be cut twice; first, as soon as the bloom appears, and afterward for seed. The plant is perfectly hardy and makes a very nutritious food.

**Per lb postpaid 35c—not prep'd 10 lbs \$2.40**

## SUNFLOWER

**MAMMOTH RUSSIAN**—The largest and most productive variety. It makes one of the very best of foods for poultry; a great egg producer.

**Per 1/4 lb 10c—lb 25c postpaid—not prepaid  
10 lbs \$1.25**

**COMMON**—A well-known variety growing from three to four feet high; has broad blades and strong stalks.

**Per lb 20c postp'd—not prep'd 100 lbs \$9.50**

**EARLY FORTUNE MILLET**—Has given astonishing yields of both seed and fodder. It is very early and is claimed to be rust-proof. The fodder can be fed to horses and other stock without injury, even after the seed has formed which cannot be done with safety with most of the millets. The seed is large and of a beautiful red color.

**Per lb 20c postp'd—not prep'd 100 lbs \$9.50**

**NEW SIBERIAN**—New and wonderfully productive. Extremely hardy, and about two weeks earlier than the German Millet, growing four feet in height.

**Per lb 20c postp'd—not prep'd 100 lbs \$9.50**



A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop.  
 When you buy a fanning mill be sure you get a "CLIPPER." Special catalog FREE.



# CLOVER AND ALFALFA SEEDS

**Write for prices on 100 lbs. or ton lots. They are always subject to market changes. See page 33**  
**Single pound prices postpaid; for larger lots add postage at zone rate.**

## Alfalfa or Lucerne Clover

**A**LFALFA should be cut for hay when the shoots of the next crop appear at the base of the plants.. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow, and during the hottest and driest weather, when other grasses are parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an unusual thing to harvest five or six crops of hay from the same field in one season without irrigation, and the same result is obtained on grasses as parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an unusual high, dry lands where irrigation is resorted to. It will not succeed on hard, clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give it a good stand before frost.

Many Alfalfas are widely advertised, such as Grimm, Baltic and the Peruvian varieties. The Grimm and Baltic are yet scarce, high in price, and reliable stock difficult to secure. The Peruvian has given good results in the South, but is of doubtful value in this section.

The domestic acclimated seed we offer can be depended upon to give splendid satisfaction.

### DRY LAND ALFALFA

Dry land Alfalfa is especially recommended for the hills and plateaux where irrigation is impossible. It comes from the highest, driest alfalfa sections, and is very superior seed. Per lb postpaid 40c—not prepaid 100 lbs \$25.50.

### ALFALFA

Our domestic Alfalfa is acclimated, and will thrive splendidly where growing conditions are normal, including irrigated land. Where dry farming is practiced special Dry Land Alfalfa is recommended. Price, 1 lb postpaid, 40c—not prepaid, 100 lbs \$23.50.

### WHITE DUTCH CLOVER

(trifolium repens)

Superior for pasture and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. Per lb postpaid choice seed 70c, fancy 75c.

### RED CLOVER

(trifolium pratense)

The standard Clover for all purposes. Hardy and succeeds well on any good soil. Makes superior hay—especially mixed with Timothy—either for dairy cows or for general use. Per lb postpaid 60c—not prepaid 100 lbs \$45.50.

### CRIMSON OR SCARLET CLOVER

(trifolium incarnatum)

Highly recommended for pasture and fertilizing purposes. Is a thrifty annual, growing from twenty to thirty inches high. Germinates quickly, grows rapidly, and stools abundantly. Cut for hay when in full bloom. Per lb postpaid 40c—not prepaid 100 lbs \$27.50.

### Clovers

#### MAMMOTH RED CLOVER

Grows very large and is used almost exclusively for plowing under for manure. Per lb postpaid 65c—not prepaid 100 lbs \$47.50.

#### BOKHARA SWEET OR HONEY CLOVER

(melilotus alba)

A rapid-growing, white-flowered sort; excellent for bees. Sow 10 pounds per acre. Per lb postpaid 45c—not prepaid 100 lbs \$30.75.

#### ALSIKE OR SWEDISH CLOVER

(trifolium hybridum)

A perfectly hardy perennial. Excellent for hay and pasture. Valuable for bees. Resists both drought and excessive moisture. Per lb postpaid 50c—not prepaid 100 lbs \$36.00.

#### ESPARSETTE OR SAINFOIN

(onobrychis gativa)

A deep rooting, perennial legume, extensively cultivated in dry, calcareous soils. Write for prices.

## FERTILIZE WITH AIR

**NITROGEN** is the most important and expensive plant food. The air is four-fifths nitrogen—the soil is full of air—but plants cannot absorb it without the aid of nitrogen gathering bacteria.

### THE STANDARD INOCULATION

# FARMOGERM

HIGH BRED NITROGEN GATHERING BACTERIA  
for CLOVERS, ALFALFA, BEANS, and OTHER LEGUMES

**When ordering Farmogerm be sure to state just what you want to inoculate.**

*A pure culture of the most active nitrogen gathering bacteria*

**FARMOGERM** is prepared for Alfalfa, all Clovers, Peas, Beans, Vetches and Sweet Peas.

**PRICES**—Postpaid—Garden Size,  
 $\frac{1}{4}$  acre 50c—1 acre \$2.00—5 acres \$7.50

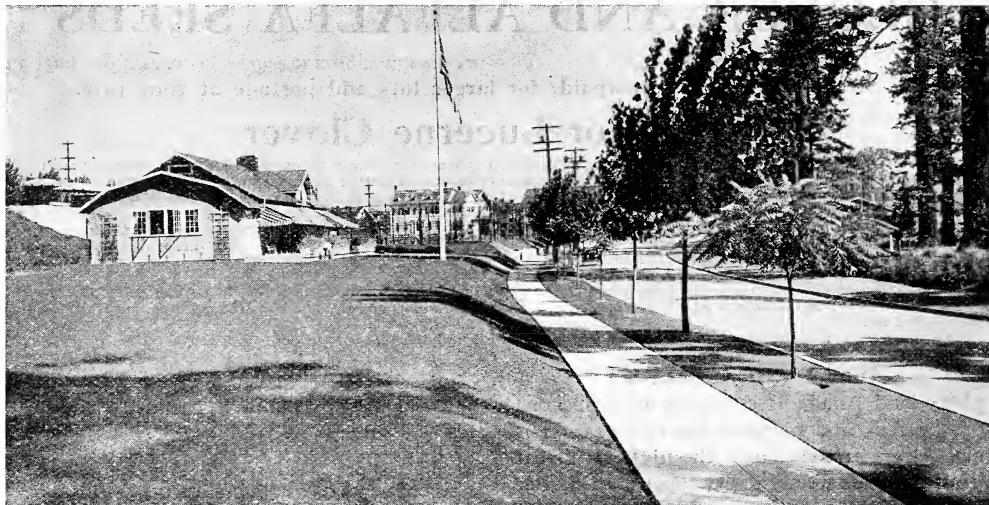
### ALLCROP FARMOGERM

FERTILIZING BACTERIA

**ALLCROP FARMOGERM**—Increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil improving the quality of the crop. Aids decomposition of soil particles; hastens decaying organic matter, making plant food more available.

Price 1 acre pkg \$2.00—5 acre pkg \$7.50

**GRASS SEEDS Are Sold at Lowest Market Price and No Premiums Can Be Given**



*Laurelhurst Club. The beautiful lawns at Laurelhurst were grown from our Diamond Grass Seeds.*

## DIAMOND GRASS SEED MIXTURES

**DIAMOND QUALITY GRASS SEEDS** are the choicest new crop seeds, recleaned and tested for purity and germination, and only those stocks that grade above the established standards are offered to our customers.

Our **Special Mixtures** have been carefully worked out by the tests and observations of practical experts familiar with the requirements and conditions to be met, and will give the best results possible to obtain for the uses for which they are recommended.

### "DIAMOND" FANCY LAWN MIXTURE

To have a good lawn the soil must be fine and rich, and well leveled. Then the best seed obtainable should be used. Plant any time from September until late Spring, depending upon the weather and soil conditions. Raking in the seed is advisable, and rolling greatly improves the turf. In watering your lawn soak it deeply and not too often, as light watering every day brings the roots close to the surface, where they quickly burn or dry out. You must not expect to make a fine lawn with cheap seed. The best lawn grass mixture costs more at first than the poorer substitute, but will be found much cheaper and more satisfactory in the end. Our "Diamond Quality" Fancy Mixed Grass Seed is prepared from the choicest recleaned Grass Seeds that have been carefully selected for their fineness and deep rooting, close growing habits and seasonable qualities, producing an ideal dense, velvety turf of lasting quality that remains green throughout the year. *Sow one pound to 400 square feet, 10 to 15 pounds to a 50-foot lot.*

Growing tests have proved our "Diamond Quality" Lawn Grass to be superior to any other mixture for our Western soils and climate; it is also free from chaff and foul seeds, weighing 23 pounds to the measured bushel. This is a guarantee of clean, plump seeds, as cheap chaff seed is very light.

**Single lb postpaid 45c—not prepaid 1b 35c—10 lbs \$3.35**

**SEASIDE LAWN MIXTURE**—A special mixture is required to meet the conditions on or near the coast, and this we call our "Seaside" Mixture. If your ground is very light or sandy, put on three or four inches of top soil to make a seed bed. After the grass is once up, the roots will penetrate the lower soil. Give plenty of water and an occasional dressing of our Lawn Fertilizer.

**Single lb postpaid 50c—not prepaid 40c—  
10 lbs \$3.75.**

**DIAMOND TENNIS COURT MIXTURE**—

For a grass court, our Tennis Court Mixture will give the best results possible, as it is made up of fine, close-growing, heavily-rooted grasses that make a dense and lasting turf.

**Single lb postpaid 60c—not prepaid 50c**

**FINE MIXED LAWN GRASS**—For use where a temporary lawn must be quickly prepared, and if kept closely cut will be lasting and satisfactory.

**1 lb postpaid 40c—not prepaid 10 lbs \$2.90**

## DIAMOND LAWN FERTILIZER

Easily applied, has no odor, and gives quick results

For New Lawns use 1 oz. to the square foot, worked into the soil before seeding. Repeat as a surface dressing when the grass shows a little growth. Old Lawns require one to two ounces per square foot as a top dressing, applied early—December to March. This produces a vigorous early growth. "FERTILIZERS" is the name of our little booklet that tells about fertilizers—what they are and how to apply them. Free on request.

The wonderful lawn under the trees of Holladay Park was grown from "Diamond" Grass Seeds



"DIAMOND  
QUALITY"

## Grass Seed (Continued)

**→ Grass Seed Prices subject to change without notice. See note top of page 33 →**  
Single pound prices postpaid, for larger lots add postage at zone rate.

### SPECIAL PASTURE MIXTURES

#### No. 1. FOR GOOD LOAMY SOIL

A mixture of Grasses and Clovers, prepared especially for good, loamy soils, that will give satisfaction as a permanent pasture, or for mowing for mixed hay. For pasture, sow 20 pounds per acre.

Price 1b 45c postpaid. Not prepaid 10 lbs \$3.75. 100 lbs \$35.00.

#### No. 2. FOR IRRIGATED LANDS

Use grass pastures and avoid bloat from green Alfalfa.

Sow 28 pounds per acre, preferably in early spring. As soon as well established give water as needed. With proper attention a permanent pasture can be maintained.

Price 1b 45c postpaid. Not prepaid, 10 lbs \$3.25. 100 lbs \$30.00.

#### No. 3. FOR LIGHT SANDY SOIL

An extra fine mixture for sandy or light soils. This will make a good, strong turf, that under ordinary circumstances should last for many years. Sow 20 pounds per acre.

Price 1b 45c postpaid. Not prepaid 10 lbs \$3.95. 100 lbs \$37.00.

#### No. 4. FOR DRY LAND

Mixed especially for the regions between the Cascades and Rocky Mountains, and on good, common wheat land. Try this mixture, as we believe that it will give you best possible results. Sow 20 pounds per acre.

Price 1b 45c postpaid. Not prepaid 10 lbs \$3.75. 100 lbs \$35.00.

**MIXTURES FOR BURNED-OVER LAND**—In grading and cleaning grasses and clovers, we frequently find combinations that are difficult of separation, and while the seeds are often of excellent germination and quality, they cannot profitably be separated and cleaned, so we blend them to produce pasture mixtures suitable for sowing on burns and logged-off land, which at the price are splendid values and very economical for such purposes.

Per lb 25c postpaid—not prepaid 100 lbs \$12.50

#### ITALIAN RYE (*loliium italicum*)

A quick-growing grass, attaining a height of 2½ to 4 feet; very desirable for temporary meadows or pastures (will last from two to six years). Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Sow 40 pounds per acre.

Per lb 35c postp'd—not prep'd 100 lbs \$19.50

#### RED TOP

(*agrostis palustris*)

A good perennial grass. Generally sown for permanent pastures. Does best on moist or even marshy land. If the ground is not overflow land it is advisable to mix it with Meadow Fescue, Orchard Grass or Alsike Clover. Sow 28 pounds per acre chaff seed; 14 pounds hulled.

**CHOICE UNHULLED** per lb 30c postpaid—not prepaid 100 lbs \$15.50

**FANCY HULLED** per lb 35c postpaid—not prepaid 100 lbs \$21.50

#### No. 8. FOR ARID OR ALKALI LAND

Particularly for arid alkali lands. This mixture is composed of varieties that have proven to be the best for the soils mentioned. Sow 20 pounds per acre.

Price 1b 45c postpaid—not prepaid 10 lbs \$3.75—100 lbs \$35.00

#### No. 10. HAY AND PASTURE MIXTURE FOR DRY HILL LAND

Especially suited to the dry sections, such as parts of Southern Oregon, Eastern Oregon, Eastern Washington and Idaho. This mixture is made up of varieties that can endure a great change of temperature from heat to cold, and at the same time will make a splendid mixed hay.

Price 1b 45c postpaid—not prepaid 10 lbs \$3.75—100 lbs \$36.00

#### No. 11. FOR GRAZING PURPOSES

This is a mixture of grasses only, being made up for the benefit of those who wish a mixture without Clover, and will make a fine permanent pasture, but is not intended for hay.

Price 1b 40c postpaid—not prepaid 10 lbs \$3.50—100 lbs \$33.00

#### No. 12. FOR BURNED-OVER BOTTOM LAND, OR LAND INCLINED TO BE WET

This is a mixture that will do well either for hay or for permanent pasture on land that is too wet for many of the grasses and clovers.

Price 1b 35c postpaid—not prepaid 10 lbs \$2.75—100 lbs \$25.00

#### ENGLISH RYE GRASS (*loliium perenne*)

A strong-growing, hardy perennial grass, noted for its nutritive qualities. It is equally valuable for both grazing and hay. Forty pounds per acre.

**For Lawns** this is used and recommended by many gardeners. If sown thickly, it makes a fine lawn, and for large grounds and parks it is very successful.

Per lb 35c postpaid—not prepaid 100 lbs \$18.00

#### KENTUCKY BLUE GRASS (*poa pratensis*)

One of the best grasses for permanent pasture furnishing a constant supply of the most nutritious feed during the greater part of the year. Sow 28 pounds per acre.

**For Lawns**—Blue Grass is used very extensively for lawns and is found in all lawn grass mixtures. Sow 1 lb. to 400 sq. ft. if used alone.

**Fancy** per lb 40c postpaid—not prepaid 10 lbs \$2.90—100 lbs \$27.00

**→ Write Us for Special Mixtures for Terraces, Shady Places, Dry or Wet Land →**



## Grass Seed (Continued)

**Grass Seed prices subject to change without notice. See page 33.**  
**Single pound prices postpaid, for larger lots add postage at zone rate.**

### CREEPING BENT GRASS

(*agrostis stolonifera*)

Well adapted for sandy pastures near the Coast, and good for pasture on low lands. If sown alone, use 25 pounds per acre. Excellent for lawns. Use 12 to 15 pounds per 50-foot lot.  
**Per lb 70c postpaid—not prepaid 10 lbs \$5.50**

### RHODE ISLAND BENT

(*agrostis tenuis*)

Resembles Red Top. Makes a close sod; valuable for permanent pastures and meadows. Twenty-eight pounds per acre. For lawns, use 12 to 15 lbs. per 50-foot lot. Gives good results.  
**Per lb 60c postpaid—not prepaid 10 lbs \$5.00**

### TALL FESCUE

(*festuca elatior*)

Succeeds best in moist alluvial and strong clayey soils; is very productive and lasting; valuable for permanent pasture, is relished by stock and on rich land makes fine hay—height 3 to 4 feet; wt. 22 pounds per bushel.

**Per lb 60c postpaid—not prepaid 10 lbs \$4.75**

### HARD FESCUE

(*festuca duriuscula*)

Fine, rather dwarf, justly noted for its drought resisting qualities. Valuable as a pasture for sheep. Sow 20 pounds per acre.

**Per lb 45c postpaid—10 lbs \$3.40**

### ROUGH-STALKED MEADOW GRASS

(*poa trivialis*)

Most valuable grass; flourishes in moist, rich soil; roots perennial, but soft foliage freezes down.

**Per lb 85c postpaid. Write for prices**

### TIMOTHY

(*phleum pratense*)

This is the most valuable of all grasses for hay. Thrives best on moist, loamy soil. Sow early in the Spring or Fall. Sow 15 to 20 pounds per acre. **Choice, lb 25c postp'd—not prep'd 100 lbs \$13.00**

**Diamond fancy, lb 25c postpaid—not prep'd 100 lbs \$13.75**

### BERMUDA GRASS

(*cynodon dactylon*)

Suitable only for climates where the Winters are not below the freezing point. It stands the hottest and driest season. Sow 6 pounds per acre. **Per lb 75c postpaid—not prepaid 10 lbs \$6.50**

### RED OR CREEPING FESCUE

(*festuca rubra*)

Forms a close turf and is valuable for lawn and golf mixtures; thrives in sandy soils and along the Coast. (14 lbs. to the bushel.)

**Per lb 50c postpaid—not prepaid 10 lbs \$3.90**

### SWEET VERNAL

(*anthoxanthum odoratum*)

Valuable to put in pasture mixtures and lawn grass on account of its earliness and its delightful fragrance when in bloom. Thrives under all growing conditions, but is only recommended for use in mixtures. If alone use 28 lbs. per acre  
**ANNUAL per lb 45c postpaid—not prepaid 10 lbs \$3.40**

### MEADOW FESCUE

(*festuca pratensis*)

Perennial; grows three to four feet high. Roots deep, thus resisting drouth. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pastures, being valuable to mix with other kinds. Sown alone, use 40 pounds per acre.

**Per lb 50c postpaid—not prepaid 10 lbs \$3.50**

### SHEEP'S FESCUE

(*festuca ovina*)

Grows freely in high, dry and open pastures. Its chief merit is for sheep pasture. Thirty-five pounds to the acre. **Write for prices**

### TALL MEADOW OAT GRASS

(*avena elatior*)

Often attains a height of three to four feet by the middle of June. Makes splendid hay and thrives on sandy loam, but makes its best growth where there is some clay. Can be fed as a pasture grass, and will generally bear cutting three times. For mixing with Perennial Rye and Alfalfa for sandy soils it is excellent. Sow about 30 to 40 pounds per acre alone or half that amount if mixed with the above varieties.

**Per lb postp'd 50c—not prep'd 100 lbs \$36.50**

### MESQUITE

(*notholcus lanatus*)

It is usually sown on virgin soil, without cultivation, after the ground has been burned over. Sow about 35 pounds to the acre chaff seed; hulled 15 pounds per acre.

**FANCY HULLED. Write for prices**

### CHEAT SEED

(*bromus secalinus*)

Cheat yields a good crop of hay, especially on low or moist soil and will stand considerable overflow without harm. It makes an excellent hay for cows or horses, but should be cut before it gets too ripe. Sow in the Fall or early Spring same as oats, and about 100 pounds per acre.

**Per lb 15c postp'd—not prep'd 100 lbs \$4.25**

### CANADIAN BLUE GRASS

(*poa compressa*)

Recommended in all pasture mixtures on dry soil; thrives well on clay or hard trodden and poor soil. Sow 28 pounds per acre. **Write for prices**

### CRESTED DOG'S TAIL

(*cynosurus cristatus*)

A perennial grass with short, narrow leaves; valuable for lawns or pastures on dry, light land; makes excellent sheep pasturage. Use 20 pounds per acre if sown alone.

**Per lb 50c postp'd—not prep'd 10 lbs \$4.00**

### ORCHARD GRASS

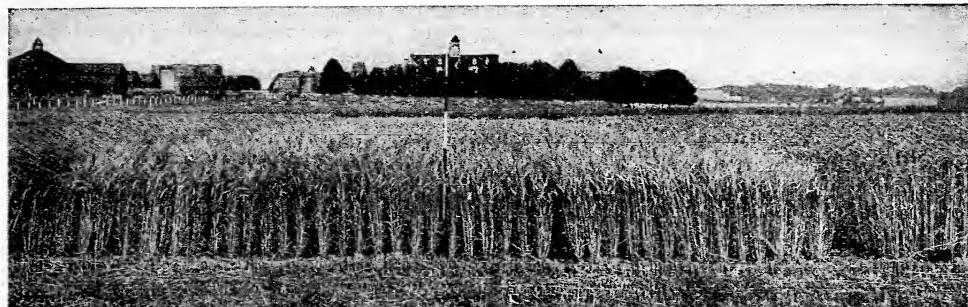
(*dactylis glomerata*)

One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Sow 28 pounds per acre. **Fancy Eastern per lb 50c postpaid—not prep'd 10 lbs \$3.60—100 lbs \$34.50**



# BARLEY

**B**ARLEY is a shallow feeder, the roots growing near the surface, and requires a rich, mellow soil. Barley responds readily to good tillage and any extra work with the disc and fine tooth harrow will be amply repaid. Do not try to grow upon poor, sandy or worn out soils, or where the ground is not in good condition or well drained. In rotation, Barley follows Corn, Peas, Potatoes, or any cultivated crop, and is the best nurse crop for starting clovers or mixed grasses. Should be planted late after ground is warm and Spring weather settled. Plant two bushels per acre. Crimson Clover planted in the Fall and plowed under after blooming in the Spring, leaves the soil in fine condition for barley.



*Trial Plot of Hannchen Barley, Oregon Agricultural College*

## BLUE HULLESS BARLEY

### Beardless

This new Barley originated at the Oregon Agricultural College and is recommended as one of the most satisfactory varieties for this section, being a heavy yielder with strong straw and makes a satisfactory and profitable crop for either hay or grain.

### Write for prices

## NEW—"ODERBRUCKER" BARLEY

This is a Pedigreed strain of 6-row barley, selected and bred by the University of Wisconsin, and is considered the earliest maturing, most prolific of all the barleys. Has a stiff straw, is rust resistant, and owing to its high protein content is a very superior feeding sort. This is the variety that was secured at great expense by the Oregon and Washington Railroad Co. for introduction in their territory. We offer the genuine stock of our own growing.

Per lb postp'd 15c—not prep'd 100 lbs \$4.75

## BLACK HULLESS BARLEY—Bearded

**Best of grains for feeding or fattening stock. Greater food value than corn.**

Black Hulless Barley will grow on the dry Alkali soil where other grains fail. Sow in the Fall or Spring as late as June 15, 75 to 100 lbs per acre. Will yield as high as 75 bushels to the acre, weighing about 70 lbs. to the measured bushel; does not shatter or shell out easily.

When planted in the Fall its abnormal stooling habit and wide succulent leaves make it ideal for late Fall pasture yielding a full crop the next season. Stock prefer and thrive on it.

Per lb postp'd 15c—not prep'd 100 lbs \$5.75

## COMMON BARLEY

We always aim to have a nice, clean stock of good Seed Barley on hand at all times. This is the common 6-row bearded type.

Per lb postp'd 15c—not prep'd 100 lbs \$4.75

## HANNCHEN BARLEY

Hannchen is the earliest and best of the 2-rowed barleys, is drought resistant and a sure and heavy cropper. The seed stock we offer was grown from seed secured from the Oregon Agricultural College. We call special attention to the plumpness of the seed, thinness of the hull and the ease with which the beards break off. It frequently happens that these beards drop in the field before harvest. Although a Spring Barley the United States Department of Agriculture has successfully grown Hannchen Barley from fall seeding where the winters are mild.

Per lb postp'd 15c—not prep'd 100 lbs \$5.00

## BEARDLESS BARLEY

Straw is about the height of the Common Barley, but better, and will stand up on any land, our seed crops have averaged 65 bushels per acre in dry unfavorable seasons. Sow as early as you can; frost does not hurt it. Many farmers will not grow Barley on account of the long, harsh beards which are so disagreeable in threshing although it is a profitable crop. This is as nearly beardless as seems possible to obtain, as beardless barleys show a tendency to produce a small percentage of bearded heads; it is about as easy to grow and handle as oats, and is the most popular Barley grown.

Per lb postp'd 15c—not prep'd 100 lbs \$5.00

## WHITE HULLESS OR BALD BARLEY

### Beardless

An early Spring variety—beardless, of high feeding value, said to exceed corn as a pork producer. Can be fed to all live stock—especially valuable used in a mixed ration. Grain plump, heavy and when threshed is hulless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Culture same as Common Barley.

Per lb postp'd 15c—not prep'd 100 lbs \$7.50

**Remember ALL PRICES ARE SUBJECT TO MARKET CHANGES.**  
You will always get your money's worth or we will quote on request.



## SEED OATS

THE production of fine seed oats has always been one of our leading specialties and we consider them to be the most profitable and satisfactory grain crop, being indispensable to stock and dairymen, and their use as a food is constantly increasing.

Planted in season, oats rarely fail, are easily and cheaply grown, and the valuable new varieties which we offer will double the number of bushels per acre that you would get from common seed oats, which means half the cost of production, or twice the profit.

They will mature in July from Spring sowing, giving quick returns and leaving the soil in good condition for Fall planting.

Of what other grain crop can so much be said, and what other crop is more necessary and valuable to the dairy and stockman?

We offer select, recleaned, well-matured seed oats of standard varieties, suitable for this section and our own varieties, "SHADELAND ECLIPSE" and "SHADELAND CLIMAX," the earliest and most vigorous, heaviest yielding oats ever grown anywhere. (See next page.)

### SHADELAND SEED OATS

For 16 years "Shadeland Oats" have never failed to produce a record crop, not small patches under favorable conditions, but big average yields throughout large fields, such as the Polk County record of 135 bushels and 10 pounds per acre of "Climax," Clackamas County, 126½ bushels of "Eclipse" per acre over a 14 acre field, Lincoln County 135 bushels over a 41 acre field, weighing 41 pounds to the bushel and a field near Coquille that ran 135 bushels per acre.

**SHADELAND OATS** are grown especially for planting purposes, and each year typical heads are selected in the field by hand, and from these new seed is grown for revitalizing and perpetuating the type, and maintaining the standard. The latest selection from the splendid strain of "Shadeland" Side Oats is "Eclipse," an improvement over "Challenge," which in turn took the place of the original type. "Shadeland Wonder," from which famous parent the marvelous "Shadeland Side Oat Eclipse" is the third generation by reselection.

### (New) HULLESS OATS

Many Varieties of Hulless Oats have been tried by the Department of Agriculture, but very few yield well enough to pay the grower.

"**SHADELAND**" HULLESS like all "Shadeland" Oats yields heavily. Mr. Nairn reports that from 300 pounds of seed, 7560 pounds of oats were harvested, and a single pound planted in a test row, 100 yards long, gave 100 pounds of cleaned oats.

HULLESS OATS grow like ordinary oats with a branching head but thresh out clean, the grain being larger than the kernel of common oats and ready for rolling or milling just as they come from the cleaner, retaining all of their richness and flavor—and on "Shadeland Farm" where everybody is Scotch and expert judges of oat porridge Hulless Oats are served twice daily. You can make your own oatmeal on any gristmill and it will also cook quicker than other oatmeals.

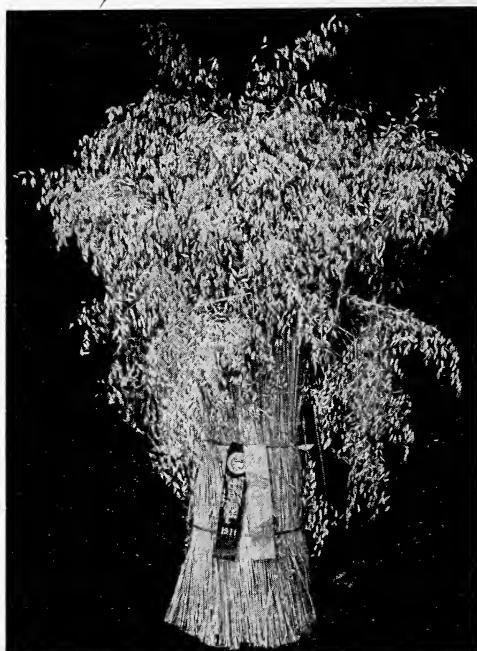
NEW HULLESS OATS stool freely, stand up well and will thrive wherever oats can be grown. They are drouth resistant and ripen in about 100 days from seeding and have given 50 bushels per acre, weighing about 54 pounds to the measured bushel. Sow at the rate of 40 to 50 pounds to the acre. Give "Shadeland" Hulless a trial.

Price lb postpaid 25c. Not prepaid 10 lbs \$1.35—100 lbs \$12.00.

#### WHICH IS YOUR CHOICE?

The difference in the cost of planting and harvesting an acre of common oats yielding 20 to 50 bushels, and of growing our record-breaking "Shadeland" oats that give from 80 to 135 bushels per acre is about \$1.50; in other words, it costs about as much to plant, care for and harvest oats that yield only half a crop as it does to reap a real harvest.

#### THINK THIS OVER



"CLIMAX" always a winner.

A "CLIPPER" CLEANER will improve the quality and increase the yield of any grain crop

## Shadeland ECLIPSE

**SHADELAND ECLIPSE**—Side Oat—Is a re-selection from our famous "Shadeland Challenge," and is living up to its name by "eclipsing" all competitors, including the parent stock, being equally as vigorous and early and the massive heads are uniformly larger and filled with plump, heavy thin-hulled oats of finest milling quality.

The yield on light dry soil where our seed crops are grown, runs from 75 to 85 bushels per acre and moist bottom land 125 bushels per acre is not uncommon.

"SHADELAND ECLIPSE" can be planted Fall or Spring, west of the mountains (Fall plantings should be made on well-drained soil), but in severe climates early Spring planting is best. Matures in 90 to 100 days, and can always be harvested before the Fall rains. Their beautiful bright color and plumpness commanding the top price in the market. Try this grand new side oat.

Price postpaid 1 lb 15c—4 lbs 50c—not prepaid half bushel \$1.00—bushel \$1.90—100 lbs \$5.00

 **DON'T FORGET** "Shadeland Oats" won firsts every year for 15 years at the Oregon State Fair and at every North Pacific Land Show—an unbroken record.

**"SHADELAND OATS" will win for you and add to your profits.**



*Sheaf of Prize Winning Shadeland Oats*

## Shadeland CLIMAX

**SHADELAND CLIMAX**—Tree Oat—For early Spring planting where seasons are short, in high, dry altitudes, and where quick growth and early maturity are demanded "CLIMAX" will give you a bountiful harvest of the finest oats you ever saw. The white grains are uniformly large, plump and full with a very thin hull and are often borne 3 in a spikelet, which partly accounts for its wonderful yield.

In our trials "SHADELAND CLIMAX" has not been injured by severe early freezing and later drought, but has stood up, green and vigorous, yielding one hundred bushels per acre on hill land when oat crops throughout the same section were stunted and dried up.

If you live West of the Cascade Mountains you can plant "Climax" Fall or Spring, any time the ground is fit, but where the climate is severe, Spring plantings are best.

Price postpaid 1 lb 15c—4 lbs 50c—not prepaid  $\frac{1}{2}$  bushel \$1.00—bushel \$1.90—100 lbs \$5.00

**To Know** that you are getting the genuine "SHADELAND" Oats always buy direct from our store. Prices are so low that you cannot afford to risk any other seed oat.

## STANDARD SEED OATS

Choice Recleaned Stock of the following varieties can always be supplied

### SWEDISH RED

A comparatively new tree Oat from Sweden having a soft hull and fine soft straw which is ideal for hay. This is the Oat grown so extensively in Northern California and along the Southern Oregon Coast. Sow in Fall or Winter.

Price 1b 15c postp'd—not prep'd 100 lbs \$5.00

### WHITE SEED OATS

We always try to have a selected re-cleaned stock of No. 1 White Seed Oats which we can supply at market prices. Write for samples and prices on the quantity you require, or send in your order. You will always get full value for money sent.

Per 1b 15c postp'd—not prep'd 100 lbs \$4.35

### WHITE "SIDE OATS"

For those who prefer a side oat we offer a fine grade of recleaned white "Side" Spring oats. Samples and prices on request, as the market is very uncertain and prices cannot be guaranteed to remain the same as when this catalog is printed.

Per 1b 15c postp'd—not prep'd 100 lbs \$4.35

### GRAY WINTER

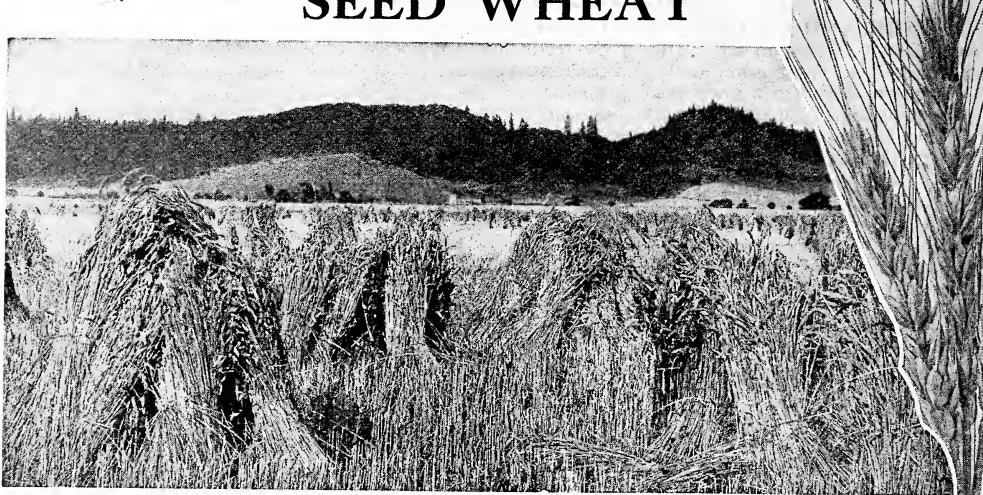
This Oat is planted extensively throughout the Northwest as a Fall or Winter Oat. Is well and favorably known, being a good yielder, and the Oats are large and plump.

Per 1b 15c postp'd—not prep'd 100 lbs \$4.85

 **TREAT YOUR SEED GRAIN with Formaldehyde before Planting. See sprays**



# SEED WHEAT



**WHEN** ready to buy Seed Wheat, write for quotations or send in your order and we will give full value for money sent. The following are standard market varieties that are known as the most profitable and best yielding.

**AULIEATA**—*Italian Wheat—Winter*

A fine, large hard Winter wheat from Toscana, Italy. Said by the Italians to be ideal for making their delicious Italian bread. Also a superior macaroni wheat. Gluten content about 7.59%. Has given heaviest yield in Willamette Valley from February planting.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**BLUE STEM**—*Spring*

Although a Spring variety, can be planted as a Fall Wheat in sections where Winters are mild. The Blue Stem of the Pacific Coast has a white grain and smooth chaff, quite unlike the Velvet Chaff and Red grains of the states East of the Rockies. Better results are had with this Wheat East of the Cascade Mountains, as it has a tendency to lodge in the moist sections on the Coast.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**EARLY BAART**—*Bearded—Spring*

Early heavy yielding, a large white grain of finest milling quality. In the big wheat sections of Eastern Washington, Early Baart has matured three weeks ahead of Blue Stem.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**FOISE**—*Winter*

Medium hard kernels. Beardless, chaff red. Heads slightly club shaped at tip. Specially adapted to the richer soils of the valleys and foothills west of the Cascades, and under favorable conditions, yields heavily. Mills well.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**FORTY FOLD**—*Winter*

Forty Fold is referred to as "Gold Coin" in some sections. Is quite early, seed resembling Blue Stem. A favorite Winter variety in many localities, and in good demand for milling.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**RED CHAFF**—*Winter*

Beardless with red chaff and white kernels. Popular variety for western Oregon and Washington.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**LITTLE CLUB**—*Spring*

This well-known variety has stiff, strong, typical club head and does not shatter easily. Is a good grower and yields well.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**MARQUIS**—*Spring*

The grain is dark, flinty and very heavy, weighing about 65 pounds to the measured bushel. Heads are beardless, chaff smooth. Very early heavy yielding, and of splendid milling and baking quality.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**PROHI WHEAT**—*Winter*

Soft, white winter. Beardless, white chaff, medium long kernel. Has a characteristic angular shape to the kernel. Is a good yielder, suited to conditions west of the Cascades.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**RED RUSSIAN**—*Winter*

This is extensively grown in the Palouse country of Eastern Washington, where conditions are favorable. It grows vigorously, maturing late, and gives a heavy yield of both grain and foliage. It is a superior variety for choking out weeds, growing close and luxuriantly.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**TURKEY RED**—*Winter*

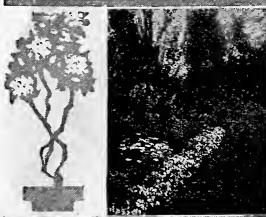
A medium hard Red bearded variety; a heavy yielder and does not shatter out easily. Is very hardy, doing well in cold climates, but in moist sections has a tendency to lodge badly. The grain is hard and of good quality. A good Wheat for the dry sections East of the Cascades.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**

**WHITE WINTER WHEAT**

Soft, white winter wheat. Resembles Forty Fold. Beardless with white chaff. Kernels short and plump. A good milling wheat suited to conditions west of the Cascade Mountains.

**Price** **lb 15c postp'd; not prep'd 100 lbs \$5.35**



## "DIAMOND QUALITY" FLOWER SEEDS



**F**LOWERING plants are enjoyed by everyone, and cut flowers for home use or flowering plants for garden display can easily be grown; their care is a pleasant and healthful diversion, and for the small expense of time and money nothing will return so much pleasure and profit. If you have any planting problems, if you wish to produce special effects or work out color schemes, write us; we will be glad to assist you in every way possible, and our experience is at your service.

**CULTURE**—Cultural directions are printed on the back of nearly all packets. Flowers usually succeed best in a sandy loam, made rich with well-rotted manure, which should be made fine and thoroughly mixed with the soil. A soil thus prepared will remain moist and loose, so that flower seeds, which are generally small and delicate, will germinate and grow with vigor.

After the plants are up they require plenty of air and moisture, but they must not be too wet or they will "damp off." When large enough to transplant, put them in boxes or pots, giving them plenty of room, then when the ground is warm enough to put them outside, each plant will have a nice clump of roots. But if they are left in the seed and are close together, they will be weak and will not thrive.

A common mistake with flower, as well as other seeds, is planting too deep. A good rule is to plant the same depth as the thickness of the seed, and always press the soil down firmly, as this helps the seed to secure a firm hold and also retains the moisture.

A hotbed or cold frame is very convenient to start seeds in, as the temperature and moisture can be so regulated as to make their germination and rapid growth more certain. Most seeds do well if sown in boxes in a sunny window in the house.

Plants are usually ready to be transplanted when they have made a growth of two inches.

### INFORMATION THAT WILL AID IN SELECTION OF FLOWERS

**Annuals** bloom and ripen the first year and then they perish. Many annuals in warm climates, or when taken in, or protected during Winter, become perennial, with short lives.

**Hardy Annuals, Biennials and Perennials** can be sown in open ground early in the Spring if desired, and Hardy Biennials and Perennials do not require any protection in Winter.

**Perennials** flower several years in succession.

**Biennials** do not generally flower the first year, and are in their perfection the second year.

**Half-Hardy Annuals, Biennials and Perennials** should not be sown in open ground until settled warm weather, though they can be sown in the house, if desired, early, and afterwards transplanted. The two latter need to be protected in Winter, or carried over until Spring in cold frames or greenhouses.

 For the convenience of our customers we have grouped annuals together—separating them from the biennials and perennials, and have arranged a classified list giving color and habit of flowers and plants to aid in selections for special effects. See Page 59.

### "Diamond Quality" SWEET PEAS

Sweet Peas Head the list as our most beautiful and popular annual

**O**UR Famous "Diamond Quality" Sweet Peas are selected with critical care and we offer the best productions of the foremost growers, including the latest, most valuable novelties. We conduct careful trials, and, for quality and assortment of varieties, our stocks are unsurpassed. Although we list only those we consider best, we can supply any variety in commerce, and special orders will receive careful attention.

**CULTURE**—First and most important, plant as early in the Spring as the conditions will permit. Seeds should be sown at the rate of one ounce to fifteen feet. Make a trench about three to four inches deep, planting the seeds in the bottom about two inches deep, pressing the soil down firmly. After the plants are well up, thin to four or five inches apart, and draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional thorough soaking being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.

 FARMOGERM FOR SWEET PEAS—Makes earlier, better flowers. See page 37.

# EARLY FLOWERING

LONG-SEASON SPENCER

## SWEET PEAS

A Cross of Early GRANDIFLORA and SPENCERS—of fixed color and type

**SIX WEEKS EARLIER** than the Spencers, these new early-flowering varieties begin to bloom 106 days from planting in the open ground and flower through a long season—about 4 months.

New Early-Flowering Spencers are fixed as to type and color and should not be confused with the Christmas or Winter-Flowering varieties generally listed.

For complete planting instructions and care of Sweet Peas see page 45.

**EARLY LIBERTY**—New brilliant red—in the words of the introducer—"Nothing yet offered has approached this deep sun proof crimson or blood red—a most welcome addition to this class—be sure to try a packet of Liberty." Pkts each 20c

### EARLY HEATHER BELL

Very large graceful flower of finest Spencers form, borne 3 and 4 on long, strong stems. Color is a lovely, rich mauve—changing when cut to a beautiful mauve lavender. Valuable as a cut flower and profitable variety for florists. Pkts each 15c

### EARLY SNOW FLAKE

The best of the "Early White Seeded Spencers"—a beautiful white for commercial growers. The flowers are very large, beautifully waved and borne in greatest profusion on long stems. Pkts each 15c

## SWEET PEAS—Spencer Varieties

A splendid collection, including the best of the recent novelties.

The new "Spencer" type has lovely waved and fluted flowers of gigantic size, and in exquisite colorings, length of stem, and lasting qualities are much superior to the older types. For culture see page 45.

### RED AND MAROON

**Black Knight**—Rich dark wine red with velvety Black Sheen. Pkt 10c—oz 35c

**King Edward**—Bright crimson scarlet, largest size, wavy standard; drooping wings, long stems; one of the finest reds. Pkt 10c—oz 35c

**King Manoel**—Large, full, wavy blossoms of dark brilliant maroon. A bold and attractive flower of great beauty. Pkt 10c—oz 35c

**Maude Holmes**—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. Pkt 10c—oz 35c

**White Spencer**—A pure white flower of enormous size, beautifully crinkled and fluted, of splendid substance. Pkt 10c—oz 50c



### FARMOGERM for Sweet Peas

Makes larger  
Flowers and  
prolongs the  
blooming period.  
Easily applied  
before planting.

50c postpaid

### EARLY MELODY

A lovely rose pink on white having the dainty coloring and general appearance of "Countess Spencer," very floriferous, the blooms being mostly fours on fine stems. Pkts each 15c

### EARLY SPRING MAID

Color a light pink on a cream ground; a flower of great beauty and refinement; the large blossoms, 4 on a stem, make this a most attractive and desirable variety. Pkts each 15c

Pkts each 15c

**Othello**—Very deep maroon of largest Spencer type; wings very wavy, large graceful flower; best of its color. Pkt 10c—oz 35c

**Queen Alexandra**—An extra fine intense scarlet, sunproof Sweet Pea. Of large, full, waved form. Free-flowering and vigorous. Pkt 10c—oz 35c

**Vermilion Brilliant**—An intense pure scarlet self-color of rare beauty and substance. Absolutely sunproof. A stocky, vigorous grower, profuse bloomer, the long, strong stems carry four perfect flowers. Pkt 10c—oz 50c

### WHITE

**King White**—The newest and most magnificent white; of perfect Spencer type; the immense petals gracefully frilled—are a pure white of wonderful substance. Pkt 10c—oz 35c



## SPENCER SWEET PEAS (*Continued*)

### LAVENDER AND BLUE

**Asta Ohn**—Lavender, suffused with mauve; of perfect form, largest size, 4 blossoms on long, strong stems; very vigorous. Pkt 10c—oz 35c

**Flora Norton**—Bright blue with just a tinge of purple. Fine Spencer form. Pkt 10c—oz 35c

**Florence Nightingale**—Immense, bold erect flowers of soft, rich lavender with very delicate suffusion of rose; a beautiful, self-colored flower, frilled and waved. Bears four blooms on extra long stems. Pkt 10c—oz 35c

**Orchid**—Extra large flowers borne 3 and 4 on long strong stems; color a true deep Orchid lavender, a new color in sweet peas. Vigorous and free blooming Pkt 10c—oz 35c

**Royal Purple**—A rare new shade in Sweet Peas, rich purple, almost true royal, a color that does not exist in Grandiflora type. Pkt 10c—oz 35c

**Wedgewood**—A true self—being a beautiful Wedgewood blue; is larger, more vigorous, blooms more freely and is entirely free from purple shading. Pkt 10c—oz 35c

### ORANGE AND SALMON

**Barbara**—A beautiful shade of orange salmon, the brilliancy and delicacy of the coloring being enhanced by planting in partial shade. A true Spencer of lovely form, very valuable as a cut flower. Pkt 10c—oz 35c

**Helen Lewis**—A giant flower of perfect form; standard rich crimson orange, wings orange rose; open form, full, wavy. Pkt 10c—oz 35c

**Illuminator**—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. First class certificate. Pkt 10c—oz 50c

**Stirling Stent**—Color, a deep salmon suffused with orange. The flowers are of superb Spencer form, particularly effective by artificial light. First class certificate and silver medal. Pkt 10c—oz 50c

**Thomas Stevenson**—The most brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form. Pkt 10c—oz 50c

### PINK AND CREAM

**Constance Oliver**—Clear, rich pink on cream ground; true Spencer type; best of its color. Pkt 10c—oz 35c

**Countess Spencer**—*Pink*—The first Sweet Pea of the Spencer type. Flowers extremely large, beautifully expanded, crumpled and waved. Color silvery white, suffused and tinted with soft shell pink, deeper at the outer edges. Pkt 10c—oz 35c

**"Duplex Cream"**—The standards are large, bold and beautifully curved. A vigorous grower and produces many fours. Color a deep rich cream. Pkt 10c—oz 35c

**"Margaret Atlee"**—The most perfect of the Duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. The cream deepens into a bright buff at base of standard and wings. Flowers are of very large size and are borne almost uniformly four on a stem. Pkt 10c—oz 35c

**Mrs. Routzahn**—Color, soft straw tinted with blush pink, shading to rose and apricot at edges, with distinct rose margin; of immense size; one of finest Spencers. Pkt 10c—oz 35c

**Primrose Spencer**—Color, a true primrose. Very vigorous, free-flowering, excels in beauty of form, length of stem and keeping qualities. Pkt 10c—oz 50c

### VARIEGATED

**America**—The largest and finest of its class. Pure satiny white, striped and splashed brilliant crimson; 4 flowers of perfect form borne on long stems. Pkt 10c—oz 35c

**Apple Blossom**—A truly giant flower; color standard rose with deeper veining, wings light carmine, ground color primrose. Pkt 10c—oz 35c

**Dainty**—A pure, glistening white with distinct margining of bright rose-pink; comes four blossoms on long stems. Dainty is all its name implies and is the best picotee edge yet produced; very large and wavy. Pkt 10c—oz 35c

**Senator**—A combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. Pkt 10c—oz 35c

### SWEET PEAS IN MIXTURE

**Diamond Mixture**—The most perfect blend of the finest named varieties it is possible to produce. This mixture contains many famous novelties the best of Grandifloras, also standard Spencer types, and will delight the most critical.

Sold in 1-oz sealed pkts only at 15c each—2 for 25c—12 for \$1.25—not sold in bulk.

**Superb Mixture**—*True Spencers Only*—A splendid mixture, carefully proportioned and blended to produce pleasing and harmonious combinations of color. These are not seedlings, but carefully selected named varieties that retain all their purity and brilliance of color. Pkt 10c—oz 30c— $\frac{1}{4}$  lb 85c—lb \$2.50

**GRANDIFLORA MIXED**—These old time favorites while not as large as Spencers are very free flowering and bloom through a long season, making a splendid display. Our mixture is made up of select named varieties in the finest colors and shades. Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25



# ANNUAL FLOWER SEEDS

## And Those Generally Used as Such

**C**HARMING effects for every planting purpose can be had at very little expense by the proper planting of Annual Flowers, Vines and Foliage Plants. For classified list showing what is best for various purposes, see page 59.

Annuals bloom the first year, and many of our most popular flowers come in this class—under favorable conditions a few varieties will continue to live longer than one season, but as a rule they perish, and in planting for permanent effects the perennial plants are generally selected, the annuals being used for the first one or two seasons until the perennials become established.

### ASTERS—Oregon Grown Seed

**A**STERS grow to perfection in our mild, cool climate and splendid strains of the best-known sorts have been developed by careful selection. As Fall bloomers for garden or cut flowers, asters are most satisfactory, and the varieties we offer being acclimated can be depended on for best results, rivaling the chrysanthemum in size and beauty. Asters require a rich, moist soil. Seed should be sown inside in March, and plants transplanted to the open ground when the weather is settled.

**"CREGO GIANT" ASTER**—The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, have rare beauty of form and brilliant coloring, are very vigorous, and free flowering.

**White, Shell Pink, Rose, Purple, Lavender**

Pkt 15c— $\frac{1}{8}$  oz \$1.00

**PACIFIC BEAUTY**—A rich true lavender, with big fluffy blooms on strong stems; free bloomer and great keeping qualities.

Pkt 15c

**GIANT CRIMSON**—A new velvety crimson of branching habit, upright grower. Excellent for garden decoration and cutting. Shows up well under artificial light.

Pkt 10c

**ASTER-MUM**—A selection from "Giant Comet." Of immense size, resembling Chrysanthemums in form, hence the name "Aster-mum." Plants are about two feet high with good stems. A little earlier than "Crego." Three colors. White, Rose, Purple.

Pkt 10c—three, one of each color 25c

**QUEEN OF THE MARKET**—Best early Aster, of graceful spreading habit.

**Light Pink White, Dark Blue, Light Blue, Mixed.**

Pkt 10c— $\frac{1}{4}$  oz \$1.00

**"MIKADO" OR ROCHESTER**—A favorite with florists. Has very long, narrow petals, toward the center they cross and recross in splendid confusion, strong branching habit.

**Lavender-Pink.**

Pkt 15c— $\frac{1}{8}$  oz \$1.00

**SEMPLE'S LATE BRANCHING**—Flowers large, beautiful, double and borne on long stems.

**White, Rose, Shell Pink, Lavender, Purple, Mixed.**

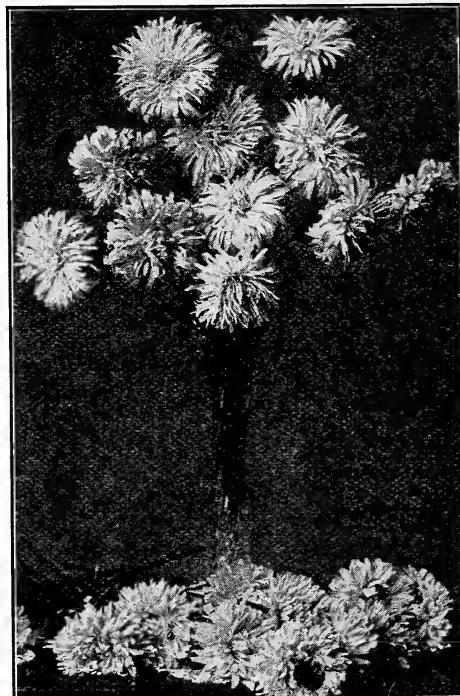
Pkt 10c— $\frac{1}{4}$  oz \$1.00

**LAVENDER GEM**—An exquisite shade of true lavender, of the comet type; free flowering, erect habit.

Pkt 15c— $\frac{1}{8}$  oz \$1.00

**DAYBREAK**—Flowers are full, large and round, borne freely on long stems. Color a dainty shell pink. Very early. Height, 18 inches.

Pkt 10c— $\frac{1}{8}$  oz 75c



**PURITY**—Same as "Daybreak," excepting color, which is a pure, glistening white.

Pkt 15c— $\frac{1}{8}$  oz 75c

**GIANT COMET**—Flowers large and beautiful; petals long and twisted.

**Rose, Crimson, Dark Blue, Light Blue, White, Mixed.**

Pkt 10c— $\frac{1}{4}$  oz \$1.00

### ASTER PLANTS

*In season we offer fine large plants of all Standard Varieties. These are well rooted and sure to give good results. See Plant Dept.*

#### AGERATUM

**Mexicanum Nanum**—Adapted for borders and bedding; covered with feathery blossoms all Summer; sow seed in early Spring in boxes to transplant or sow out of doors and thin to 4 to 6 inches.

**Dark Blue, White or mixed.** Pkt 10c— $\frac{1}{4}$  oz 25c

#### ALYSSUM

Fine for borders, edging and rockwork; a dainty little flower. In borders, sow thickly so as to form masses. Sow in Spring or late in August.

**Maritimum—Sweet.** Pkt 10c—oz 50c

**Maritimum—Little Gem.** Pkt 10c—oz 75c

**Procumbens—Of trailing habit; profuse bloomer.** Pkt 10c—oz 75c



# Annual Flower Seeds (Continued)

## **ACROCLINIUM—Everlasting**

Growing about 15 in. high, bearing white or rosy pink flowers, when cut in bud state, can be dried and used for winter bouquets. Pkt 10c—oz 75c

## **AMARANTHUS**

Handsome foliage and interesting flowers, making a striking effect in borders and beds.

**Salicifolius**—Willow leaved. Pkt 10c—oz \$1.50

**Caudatus**—Graceful, drooping flowers.

Pkt 10c—oz 75c

**Tri-color, or Joseph's Coat**—Foliage scarlet, yellow and green. Pkt 10c—oz 75c

## **BACHELOR'S BUTTON**

**Centaurea Cyanus** or *Corn Flower*—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome.

**Cyanus**—Fine single mixed. Pkt 10c—oz 35c

**Cyanus**—Fine double mixed. Pkt 10c—oz 75c

**Cyanus**—Single blue. Pkt 10c—oz 50c

**Cyanus**—Double blue. Pkt 10c—oz 75c

**Cyanus**—Double pink. Pkt 10c—oz \$4.00

## **BALLOON VINE**

A rapid growing climber, 10 ft. high, inflated seed pods, flowers white. Pkt 10c—oz 75c

## **BALSAM—"Lady Slipper"**

Handsome plants, producing masses of various colored flowers, half hardy.

**Double Camellia Flowered mixed.**

Pkt 10c— $\frac{1}{4}$  oz 25c

## **BRACHYCOME—Swan River Daisy**

A charming flower in white and blue varieties. The plants grow about 12 inches in height and bloom freely. They make elegant border plants. Mixed. Pkt 10c—oz \$1.00

## **BROWALLIA—Lavatera**

Handsome and free flowering. Covered all summer with rich blue and white flowers. 18 inches high. Mixed. Pkt 10c—oz \$1.50

## **CALENDULA—Pot Marigold**

The well-known Pot Marigold, valued by Europeans for flavoring soups and stews. Flowers are dried in Fall and kept in paper bags for use. In mild climates this plant will bloom nearly all the year round. Plant in early Spring in open ground.

**Orange King**—Double. Pkt 10c—oz 35c

**Meteor**—Double. Pkt 10c—oz 20c

**Double Sulphur**. Pkt 10c—oz 20c

**Double Mixed.** Pkt 10c—oz 20c

## **CALLIOPSIS**

Very showy and attractive, always covered with a mass of bright flowers, fine cut flowers.

**Crimson King.** Pkt 10c—oz 50c

**Golden Wave (Drummondii)** Pkt 10c—oz 50c

**Coronata Maxima** Pkt 10c—oz 50c

**Tall Single Mixed.** Pkt 10c—oz 40c

**Tall Double Mixed.** Pkt 10c—oz 40c

**Dwarf Mixed.** Pkt 10c—oz 50c

## **CANDYTUFT—Iberis**

One of the most highly prized annuals for beds or masses, very useful for cutting.

**Giant Hyacinth Flowered**—White.

Pkt 10c—oz 65c

**Carmine, Crimson, Lavender, Mixed.**

Pkt 10c—oz 40c

## **CASTOR BEAN—Ricinus**

Highly ornamental, of stately growth and having large leaves of bronze or glossy green. **Sanguineus**—Brilliant scarlet stems and fruit. Pkt 10c—oz 15c

**Zanzibariensis**—Surpasses all in size and beauty of colors. Mixed. Pkt 10c—oz 20c  
Mixed—Best varieties. Pkt 10c—oz 15c

## **CATCHFLY—Silene**

A hardy annual, yielding for a long time a profusion of umbels of bright colored flowers. The plant is covered with glutinous moisture, to which flies adhere; hence its name.

Fine Mixed—All Colors. Pkt 10c—oz 35c

## **CELOSIA CRISTATA—Cockscomb**

Very attractive and showy, producing massive heads of deeply colored flowers.

**Cockscomb Tall.** Pkt 10c—oz \$1.00

**Dwarf Empress.** Pkt 10c—oz \$3.00

**Dwarf Fine Mixed.** Pkt 10c—oz \$3.00

## **CELOSIA PLUMOSA—(Feathered)**

Splendid new class, for pots or open ground, especially fine for market.

**Thompsoni Magnifica**—Yellow. Pkt 10c—oz \$1.75

**Thompsoni Magnifica**—Crimson. Pkt 10c—oz \$1.75

**Childsii (Chinese Wool Flower)** Pkt 15c

## **CENTAUREA IMPERIALIS**

**White, Purple or Rose.** Pkt 10c—oz \$1.50

**Suaveolens.** Pkt 10c—oz \$1.25

**Moschata**—Mixed. Pkt 10c—oz \$1.25

**Gymnacarpa.** Pkt 10c—oz \$1.25

**Candidissima.** Pkt 15c—oz \$3.00

## **CLARKIA**

Hardy annual of easy growth, produce a fine effect massed in beds, bright and attractive.

**Elegans—Salmon Queen**—Double. Pkt 10c—oz \$3.00

**Elegans—Scarlet Queen**—Double. Pkt 10c—oz \$3.00

**Elegans—White**—Double. Pkt 10c—oz 75c

**Elegans—Double mixed.** Pkt 10c—oz 75c

## **COSMOS**

Seed sown in March or April and transplanted to open ground will produce plants three to five feet high by September, which thereafter and until November, will yield hundreds of blossoms three inches across; they are of various shades, from pure white to purplish crimson. Both foliage and flowers are unsurpassed for bouquets and vases. Annual. (Plants in season.)

**Lady Lenox**—A magnificent type of extraordinary size and rare beauty. Color, a delightful pink. Beautiful under artificial light. Pkt 10c—oz 50c

**Lady Lenox. White.** Pkt 10c—oz 50c

**Klondyke**—Blooms very early and continuously; three to four feet high; flowers large, golden yellow and borne on long stems.

Pkt 10c—oz \$1.50

**Mammoth Flowering**—White, pink, crimson or mixed. Pkt 10c—oz 75c

**Marguerite**—New and odd; very pretty, petals fringed. Mixed. Pkt 10c—oz \$1.50

**Early Dawn**—White, flushed pink; very early.

Pkt 10c—oz \$1.50



# Annual Flower Seeds (Continued)

## CHRYSANTHEMUM

Very showy, effective and desirable as Summer flowering plants. Hardy annuals.

*Inodorum*—Bridal Robe. Pkt 10c  
*Segetum*—Morning Star—Pale primrose

Pkt 10c—oz 60c

*Carinatum*—Northern Star—Giant white black center. Pkt 10c—oz 50c

*Carinatum*—Sgl. finest mxd. Pkt 10c—oz 40c

*Corinarium*—Dbl. finest mxd. Pkt 10c—oz 40c

## COBAEA SCANDENS—(Plants in Season)

A handsome, rapid-growing, climbing plant, having large, bell-shaped flowers, beautiful foliage and peculiarly delicate and curious tendrils.

Purple. Pkt 10c—oz \$1.25  
White. Pkt 10c—oz \$1.25

## CYPRESS VINE—*Ipomea Quamoclit*

Climber with rapid growth, handsome foliage and bright attractive flowers.

White, Scarlet or Mixed. Pkt 10c—oz \$1.25

## DELPHINIUM—(Larkspur)

The annual Delphiniums are quite hardy and bloom in the later Summer months, furnishing flowers of striking beauty in form and color. Tall varieties are suitable for shrubberies and borders, while the dwarf sorts produce charming effects in beds.

Dwarf Rocket—Finest colors. Double mixed. Hardy annual. Pkt 10c—oz 50c

Tall Double Stock Flowered—Lustrous Carmine, Dark Blue, Purple, Rose, White or Finest mixed. Pkt 10c—oz \$1.25

## EUPHORBIA

Suitable for beds of tall growing plants; foliage very ornamental.

*Variegata*—Snow on the Mountain. Variegated foliage. 2 feet. Pkt 10c—oz \$1.00

*Heterophylla*—Painted leaf. Annual poinsettia. 3 feet. Pkt 10c—oz \$2.25

## ESCHSCHOLTZIA—California Poppy

These are generally classed and grown as annuals, but are true hardy perennials. See description under perennials.

## ECHINOCYSTIS, LOBATA—Wild Cucumber

A rapid-growing climber. Very good for covering old fences or trellises. Hardy annual.

Pkt 10c—oz 35c

## FOUR O'CLOCK—*Mirabilis Jalapa*

Marvel of Peru—Easy culture, bearing a profusion of bright flowers of various shades. Flowers open at four o'clock, close in morning. Choice Mixed.

Pkt 10c—oz 35c

## GAILLARDIA—Blanket Flower

Very showy garden plant, with brilliant flowers; free blooming from early Summer until Autumn; especially effective in masses.

*Picta Lorenziana*—Double; finest mixed; annual. Pkt 10c—oz \$1.00

## GODETIA

Profuse and constant bloomers, compact and bushy in growth, flowers of exquisite colors.

Semi-dwarf. Fine Mixed. Pkt 10c—oz \$1.00

*Gloriosa*. Dark Red, Pkt 10c—oz \$1.25

*Duchess of Albany*. Pkt 10c—oz 75c

## GILIA

A hardy annual, growing 12 inches high, small delicate flowers valuable for rock work or borders.

Tall sorts Mixed. Pkt 10c—oz 30c

## GOURDS

For covering verandas and trellis work, rapid growth, bearing fruits of curious sizes.

*Calabash*. Pkt 10c—oz 35c

*Bottle and Egg Shaped*. Pkt 10c—oz 35c

*Large Varieties Mixed*. Pkt 10c—oz 35c

*Small Varieties Mixed*. Pkt 10c—oz 35c

## G YPSOPHILLA—(Annual)

*Grandiflora Elegans*—Easily raised from seed. Grows from 18 to 24 inches, bearing beautiful large star-shaped flowers in great profusion.

Pkt 10c—oz 35c

## HELICHRYSUM—Straw Flower

*Monstrorum*—Everlasting. One of the best for Winter bouquets. Hardy annual. Double mixed

Pkt 10c—oz \$1.00

## HIBISCUS—Marshmallow

Of easy culture and exceedingly showy; has large cup-shaped flowers.

Extra Mixed. Pkt 10c—oz \$1.25

## HYACINTH BEAN—*Dolichos Lablab*

Rapid growing, ornamental, climbing annuals, bearing clusters of beautiful purple and white flowers, followed by highly ornamental seed pods. Mixed

Pkt 10c—oz 20c

## HOLLYHOCKS—New Annual

*Hybrida Semperflorens*—This splendid variety will bloom in August, from Spring planting, continuing until frost. This is a great advantage, as other varieties do not bloom until the second year. Try them.

Finest New Single Mixed. Pkt 10c—oz \$1.25

## HUNNEMANNIA—Giant Yellow Tulip Poppy

*Fumariaefolia*—Best of the poppy family for cutting. Seed sown early in May will, by the middle of July, produce plants covered with their large, buttercup yellow, poppy-like blossoms, and never out of flower until a hard frost.

Pkt 10c—oz 75c

## ICE PLANT

*Mesembrianthemum Crystalinum*—Pretty Summer trailing annual for vases and rock work; leaves covered with ice-like drops.

Pkt 10c—oz \$1.00

## KOCHIA TRICHOPHYLLA—Fire Bush or Summer Cypress

Forms symmetrical highly decorative bushes, foliage green, turning to fiery red in Autumn.

Pkt 10c—oz 25c

## LOBELIA

Delicate, low-growing, annual plants of the greatest value for borders, ribbons, edgings, rock work and hanging baskets.

*Hybrid Hamburgia*—New; light blue with white eye, long, drooping flower stalks; fine for hanging baskets or boxes; grows rapidly.

Pkt 10c—oz \$8.00

*Gracilis*—Blue, trailing; beautiful for baskets.

Pkt 10c—oz \$2.50

*Crystal Palace Compacta*—Dwarf flowers very fine and rich, deep blue; finest for bedding and edging.

Pkt 10c—oz \$3.00

*Compacta Emperor William*

Pkt 10c—oz \$4.00

**Diamond Plant Food** For Ferns, Palms and House Plants—a 35c package, by mail, will feed a dozen large plants for a whole year.

# Annual Flower Seeds (Continued)

**LINUM—Crimson Flax**

**Annual**—Beautiful and effective; hardy, about 18 inches high; covered with bright scarlet flowers.

Pkt 10c—oz 50c

**MIGNONETTE—Reseda**

A quick-growing annual, highly esteemed for its delicate fragrance. It grows most rapidly and produces the largest and finest spikes of blossoms during cool, moist weather of early Spring and late Fall months, but will flower freely throughout the Summer from seed sown early in Spring. A second planting should be made about the first of August to furnish large, fine spikes of flowers during the cool Fall months.

**Odorata Grandiflora**—Large, well-formed, fragrant flowers.

Pkt 10c—oz 25c

**Machet—White**. White with reddish tinge. Best white, dwarf variety

Pkt 15c—oz \$1.25

**Golden Queen**—Dense, dwarf growth; flower golden yellow; very fragrant.

Pkt 10c—oz 50c

**Machet—Red, Victoria**—Dwarf, compact flowers red; fine.

Pkt 10c—oz 75c

**MIMOSA—Sensitive Plant**

**Pudica**—Very curious and interesting plant; leaves close if touched or shaken; annual.

Pkt 10c

**MOON FLOWER—Ipomoea Mexicana Grandiflora**

Rapid growing climber belonging to the "Morning Glory" family. Flowers are large, waxy white, and very showy.

Pkt 10c

## NASTURTIUMS

Nasturtiums are hardy annuals, of easy cultivation and flower best where the soil is not too rich. The new hybrids include various shades of rose, salmon, bright red, pale yellow, etc., either self-colored or spotted, mottled, striped and margined.

For covering trellises, fences, arbors, piazzas, trailing from vases, over rockwork, for bedding, etc., nothing can equal the gorgeous effect produced by their marvelous wealth of bloom, borne in uninterrupted splendor from early Summer until cut down by frost. The seeds, picked green and pickled in vinegar have a piquant, appetizing flavor that is a valuable addition to relishes or pickles.

### Tall Nasturtiums

**CHAMELEON**—Variable flowers marked and blotched in many brilliant colors.

**KING THEODORE**—Large velvety crimson flowers, very attractive dark green leaves.

**MOONLIGHT-PEARL**—Soft primrose.

**DUNNETTS ORANGE**—Large, bright pure orange flowers.

**PRINCE HENRY**—Fine lemon yellow, clear carmine blotches.

**SALMON QUEEN**—Extra large light salmon, suffused rosy salmon.

**RUBY**—Beautiful ruby red. Fine open flowers.

### NAMED VARIETIES

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 45c—lb \$1.50

**MIXTURE**—Standard tall varieties.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 40c—lb \$1.25

### Ivy Leaf

**TALL MIXED**—Climbing habit with pointed leaves of rich ivy green veined white, resembling English Ivy. Flowers have narrow petals and are quite distinct and pleasing.

Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

**DWARF MIXED**—Pkt 10c—oz 25c— $\frac{1}{4}$  lb 75c

**Remember** Nasturtiums will make a fine display even on poor soil where other flowers would fail. They are inexpensive and always satisfactory

**MARIGOLD—Tagetes**

A hardy plant in dwarf and tall varieties; foliage bright green and deeply cut. Flowers are various shades of yellow and brown. French or dwarf varieties good for borders. African or tall varieties good for background.

**African**. Tall or Dwarf, Double Mixed.

Pkt 10c—oz 50c

**French**. Dwarf, Double Mixed.

Pkt 10c—oz 50c

**French**. Tall Striped Double. Extra select.

Pkt 10c—oz \$1.25

**Golden Ball**. New Dwarf, Very compact.

Pkt 15c

**Legion d'Honneur**. Dwarf Single.

Pkt 10c—oz 75c

**MORNING GLORY**

The tall varieties are popular, well known, rapid growing climbers of the easiest cultivation. Very fine for covering arbors, trellises, porches, etc. The Minor, or Dwarf varieties flower very freely and do not require support.

**Convolvulus Major**—Tall, choice single, mixed, all colors.

Pkt 10c—oz 25c

**Double Mixed**—Tall.

Pkt 10c—oz 50c

**Convolvulus Minor**—Dwarf mixed.

Pkt 10c—oz 25c

**Imperial Japanese Fringed**—These have very large fringed flowers in a great variety of the most exquisite colorings; handsome, variegated foliage. Mixed.

Pkt 10c—oz 25c

**Dwarf Nasturtiums**

**CHAMELEON**—Variable colorings in bronze, crimson and yellow, rich markings.

**CLOTH OF GOLD**—Brilliant scarlet, golden yellow leaves.

**EMPERESS OF INDIA** — Intense scarlet, purplish green leaves.

**PRINCE HENRY**—Lemon yellow, with carmine blotches.

**VESUVIUS**—A rich salmon orange, dark foliage.

### NAMED VARIETIES

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 50c

**MIXTURE**—Standard varieties.

Pkt 10c—oz 15c— $\frac{1}{4}$  lb 45c

### Variegated

**TALL MIXED**—Foliage beautifully marked and marbled yellow and cream on the green ground, some leaves appearing almost white. Flowers come in all colors and markings.

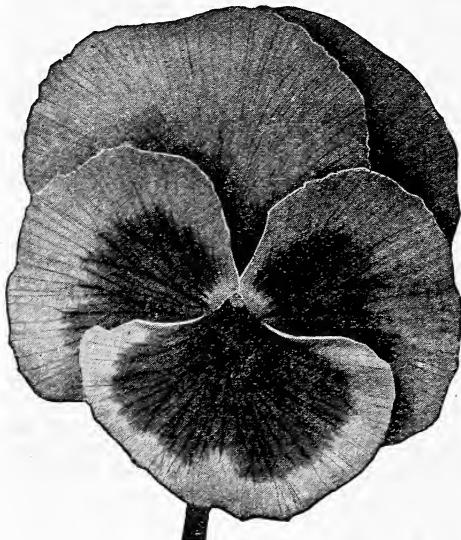
Pkt 10c—oz 25c— $\frac{1}{4}$  lb 85c

**DWARF MIXED**—Pkt 10c—oz 25c— $\frac{1}{4}$  lb 85c



# MASTODON PANSIES

FOR years the Steel Pansy Gardens have grown our Giant Pansies and co-operated in securing the finest strains from the world's most celebrated growers. These have been carefully reselected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered.



## LARGE FLOWERING PANSIES

**ADONIS**—A distinct and beautiful shade of light blue with white center and dark blotch, a most pleasing and attractive variety.

Pkt 10c

**GOLDEN QUEEN**—A rich, pure yellow of the grandest form and size. A valuable addition to the yellows, which are very hard to produce in the Giant strains.

Pkt 10c

**GIANT DARK BLUE**—A splendid blue black, very elegant, and of good substance; should be grown by everyone.

Pkt 10c

**GIANT STRIPED**—A superior strain of truly giant pansies, with the most beautiful striped markings in the richest dark shades. Very popular in Europe.

Pkt 10c

**VIOLET BLUE**—A new giant variety of a brilliant, dark indigo blue, with violet luster, each petal having a large, dark brown, veined blotch. Edges of petals slightly ruffled.

Pkt 15c

## Fancy Strains of Mixed Pansies

**TRIMARDEAU GIANTS**—Of remarkably large size and robust growth; very fine.

Pkt 10c— $\frac{1}{4}$  oz 85c—oz \$3.00

**FINE MIXED**—A fine assortment of colors.

Pkt 10c— $\frac{1}{8}$  oz 25c

**SPECIAL**—Transplanted Seedling Plants just turning into buds can be furnished at \$3.00 per hundred. Florists and gardeners should write for prices on these plants, as large orders can be quoted at very low prices.

**PANAMA-PACIFIC**—A magnificent deep yellow, some with dark centers, some clear yellow. 200,000 of these wonderful yellow were massed at the Panama Pacific Exposition. **Pkt 25c**

**MADAME STEELE**—"Elks purple"—a deep rich true royal purple pansy of great substance and giant size. **Pkt 25c**

**MASTODON BRONZE**—A giant strain of bronze pansies in all the different shades from burnished brass to gold. Nearly every color known to pansies. **Pkt 25c**

**MASTODON WHITE**—Dark center. Magnificent new white of great beauty and substance and of true Mastodon form. **Pkt 25c**

**Mastodon Pansy Seed, Diamond Mixed,**  
**Pkt 25c—Trade pkt \$1.00**

## Mastodon Pansy Plants

From February to June we offer our famous *Mastodon Pansy Plants* in full bloom, packed in baskets of one dozen each. See Plant Dept.

**KING OF THE BLACKS (Giant)**—Immense velvety black flowers of the finest quality; the largest and best black pansy. **Pkt 10c**

**MADAME PERRET**—A beautiful and distinct type with edges of petals frilled—bordered white, colors are dark wine—pink and red, beautifully veined. The earliest of the Giants, has sweetest perfume and keeps up its size of flower longer than any other. We offer the best strain. **Pkt 15c**

**SNOW FLAKE**—A grand, pure white, of extra fine quality. **Pkt 10c**

**CORNFLOWER BLUE**—A dainty cornflower blue, very showy; a splendid variety of large size and good substance. **Pkt 10c**

**MASTERPIECE—GIANT RUFFLED**—The mammoth size, richness and beauty of colorings and frilled or ruffled character of the petals, make "Masterpiece" one of the most distinct and interesting Pansies ever developed. **Pkt 25c**

**LARGE FLOWERING DIAMOND MIXED**—No pains are spared by our grower to make this strain absolute perfection in form, firmness of texture, size, freedom of bloom, and elegance and variety of markings and colorings. **Pkt 25c— $\frac{3}{8}$  oz 75c**

# Annual Flower Seeds (Continued)

## NICOTIANA

A very showy plant, producing star-shaped flowers of delicious perfume. Taken up in the Fall, cut back and potted, will bloom freely all Winter. Half hardy annual; three feet high.

**Affinis—White.** Pkt 10c—oz 75c

**Hybrida—Splendid mixed.** Pkt 10c—oz 75c

**Sanderae—**Resembles the "Affinis," but unlike that variety, does not close up in the daytime. The plants are covered with carmine-red, fragrant flowers. Pkt 10c—oz \$1.25

**Sylvestris—**Pure white, fragrant, drooping flowers; deep green foliage. Pkt 10c—oz 75c

## NIGELLA

**Love-in-a-Mist, or Devil-in-the-Bush—**

Compact growing, free flowering plants with curious looking, showy flowers and finely cut foliage. Hardy annuals. Mixed.

Pkt 10c—oz 35c

**Miss Jekyll—Cornflower Blue.**

Pkt 10c—oz 75c

## OENOTHERA—Evening Primrose

Elegant for growing in an exposed position, in border or on rockery; constant bloomer all summer. Fine mixed. Pkt 10c—oz 60c

## PETUNIA—*Hybrida*

Too much cannot be said in praise of the Petunia as a bedding plant. Our clear, bright Summers seem to bring out its best qualities. During the whole season it is covered with large, showy blossoms, which are always bright and fresh, in spite of heat and drought. The flowers are of an almost infinite variety of colors and markings, and quite as varied in form; large and small, fringed and plain, double and single. Hardy annual. Large assortment.

**Single Fine Mixed.** Pkt 10c— $\frac{1}{8}$  oz 25c

**Single Choicest Mixed—**Saved from the best flowers. Pkt 10c— $\frac{1}{8}$  oz 50c

**Single Fringed Mixed—**Large flowered; very desirable. Pkt 25c

**Double Choicest Mixed—**Full and handsome Pkt 25c

**Double Fringed Mixed—Extra Select—**Blotched and striped. Mixed Pkt 25c

## PHLOX DRUMMONDI

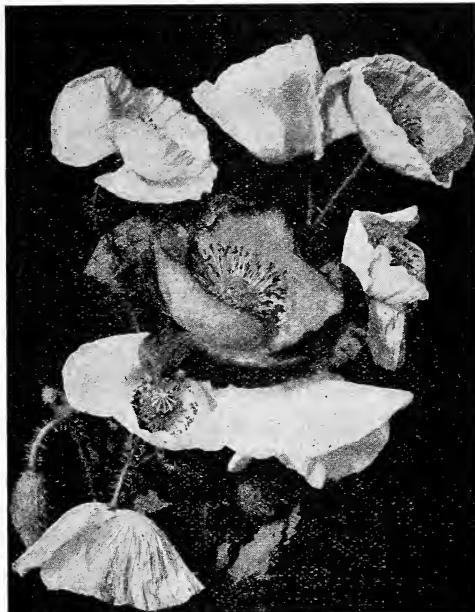
The blooms of Phlox Drummondi are unrivaled for richness and beauty of color, ranging from white to the deepest scarlet and purple. They are abundant, almost covering the foliage and of long duration. Very desirable and easily grown. For cutting, for bouquets or for bedding in masses they are unsurpassed. Hardy annual, one foot high

**Large Flowering Choice Mixed—**Flowers large and brilliant. Pkt 10c— $\frac{1}{4}$  oz 75c

**Large Flowering—**Scarlet or white. Pkt 10c— $\frac{1}{4}$  oz 75c

**Star Phlox—(Cuspidata)** Flowers have a distinctive star-like appearance, with white margins, excellent for bouquets. Pkt 10c— $\frac{1}{4}$  oz 75c

**Dwarf Mixed.**—Finest flowering sorts. Pkt 10c— $\frac{1}{4}$  oz \$1.25



*Shirley Poppies*

## POPPY—*Papaver*

The Poppy is well known and really a magnificent flower which is borne separately on tall stalks. Poppies are very showy and come in many bright and charming colors. Some are hardy annuals, others are perennials, and may be sown as the ground can be prepared.

**Double Carnation Flowered—Fringed; assorted colors.** Pkt 10c—oz 25c

**Mixed.** Shirley—The range of color, extending from white through delicate shades of pink, rose and carmine, to the deepest crimson; fine for cutting.

Single Mixed. Pkt 10c—oz 50c

Miss Sherwood—Petals satiny white, shading to chamois rose. Very beautiful and distinct. Pkt 10c— $\frac{1}{8}$  oz 25c

Double American Flag—White bordered with scarlet. Pkt 10c—oz 50c

King Edward—Large flowers produced with great freedom. Deep scarlet, shaded crimson red, with large black blotch. Height 2½ ft. Pkt 10c— $\frac{1}{4}$  oz 25c

Glaucum—(*Tulip Poppy*)—Brilliant scarlet flowers, 3 inches across. Pkt 10c—oz 75c

## PONTULACA—Rose Moss

Brilliant dwarf annuals, only six inches high, luxuriating in warm situations, and blooming profusely from early Summer to Autumn. For low beds and masses of color from Spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, white, striped, etc.

Single Mixed. Pkt 10c— $\frac{1}{4}$  oz 20c

Double Mixed. Pkt 10c— $\frac{1}{8}$  oz 25c

**Diamond Lawn Fertilizer** is inexpensive and will produce a luxuriant dark green turf. Fertilizer booklet free on request.



# Annual Flower Seeds (*Continued*)

**RHODANTHE—Swan River Everlasting**

A beautiful everlasting annual for garden or pot culture; height, 1 foot.  
Mixed colors.

Pkt 10c

**SALPIGLOSSIS—Painted Tongue**

Produces very showy, funnel-shaped flowers of large size. Fine for beds. Half-hardy annuals. **Emperor Strain**—Crimson and gold, dark scarlet, rose and gold, violet and gold, yellow and finest mixed.

Pkt 10c— $\frac{1}{4}$  oz 60c**SAPONARIA**

Pretty, dwarf bedding plant. Hardy annual. Pink.

Pkt 10c— $\frac{1}{4}$  oz 25c**STATICE—See Lavender**

Beautiful for Winter bouquets; flowers very pretty.

**Annual Varieties—Mixed.** Pkt 10c

**STOCKS—Double Ten Weeks**

These popular flowers are easily grown, and are so highly fragrant and of such beauty that they deserve a place in every garden. They are great improvements over the Gilliflowers of the olden times, being much larger and more densely double and of a great variety of colors.

**Dwarf Large Flowering**—White, crimson rose, light blue, or mixed.

Pkt 10c— $\frac{1}{8}$  oz 60c

**Virginian Stock**—A fine, early flowering plant. Hardy annual.

Mixed. Pkt 10c— $\frac{1}{4}$  oz 15c

**STOCKS—Winter or Brompton**

**Beauty of Nice**—Very large flowers of a delicate flesh pink. Extra fine. Pkt 15c— $\frac{1}{8}$  oz 60c

**Crimson King**—Rich blood crimson. Pkt 15c

**Mont Blanc**—Purest white. Pkt 15c

**Monte Carlo**—Canary yellow. Pkt 15c

**Queen Alexandra**—Soft rosy lilac. Pkt 15c

Mixed. Pkt 10c— $\frac{1}{8}$  oz 60c

**STOCKS—Dresden Perpetual or Branching.**

These 10 weeks everblooming are popularly called "Cut and Come Again." Sown in March they flower profusely from July until frost; their best period being late Autumn. Very fragrant.

**Princess Alice**—White. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**La France**—Blush pink. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Brilliant**—Blood red. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Sapphire**—Violet. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**Creole**—Canary yellow. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**May Queen**—Pale blue. Pkt 15c— $\frac{1}{4}$  oz \$1.00

**SUNFLOWER—Helianthus**

Stately growing annuals with immense golden yellow flowers; effective for garden decoration.

**Double Dwarf**—Bright golden yellow flowers three inches across. Pkt 10c—oz 50c

**Globosus Fistulosus**—Saffron, very large, double and handsome. Pkt 10c—oz 25c

**Multiflora**—Beautiful, double yellow flowers.

Pkt 10c—oz 25c

**SALVIA—Flowering Sage**

Very ornamental; flowers borne in spikes of fiery red or crimson, and continue in bloom in open ground until after severe frosts. Start in heat and transplant into light soil, one to two feet apart. Excellent for bedding in masses or single planting. Hardy annuals.

**Salvia Zurich**—New Dwarf Early. The finest of all Dwarf Salvias. Very floriferous.

Pkt 15c— $\frac{1}{8}$  oz \$1.00

**Salvia Splendens**—Brilliant scarlet.

Pkt 10c— $\frac{1}{8}$  oz \$1.00

**Bonfire**—(*Clara Bedman*)—One of the finest Salvias ever introduced; compact bush about two feet in height and diameter. Its erect spikes of flowers of brilliant scarlet stand clear above the dark green foliage and completely cover the plant.

Pkt 10c— $\frac{1}{8}$  oz \$1.00**SCABIOSA**

**Sweet Scabious, Or Mourning Bride**—Free flowering annuals; white, carmine, lilac, maroon, etc.; effective for garden decoration and valuable for cutting. **Dwarf or Tall Double**—Mixed.

Pkt 10c— $\frac{1}{8}$  oz 25c**SCHIZANTHUS—Butterfly Flower**

Beautiful, garden annuals, flowers charmingly fringed and delicately colored; one to two feet. Mixed Colors.

Pkt 10c— $\frac{1}{4}$  oz 25c**THUNBERGIA—Black Eyed Susan**

Rapid-growing annual climbers; splendid for trailing over trellises, fences, etc., beautiful flowers borne in profusion; buff, white, orange, etc., four to six feet high.

Mixed Colors. Pkt 10c— $\frac{1}{4}$  oz 25c

**VERBENA**

Very few annuals will make such a gorgeous display during the Summer months, or furnish more flowers for cutting. Start seed in the house or under glass early in the Spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost.

**Mammoth Mixed**—Selected; extra large, fine. Pkt 15c— $\frac{1}{4}$  oz 75c

**Fine Mixed** Pkt 10c— $\frac{1}{4}$  oz 35c

**Candidissima**—Pure white. Pkt 10c— $\frac{1}{4}$  oz 50c

**Scarlet Defiance**—Fiery scarlet. Pkt 10c— $\frac{1}{8}$  oz 50c

**Pink Shades.** Pkt 10c— $\frac{1}{4}$  oz 75c

**Blue Shades.** Pkt 10c— $\frac{1}{4}$  oz 75c

**VISCARIA—Rose of Heaven**

Their profuseness of bloom will always rank them among general favorites.

**Fine Mixed.** Pkt 10c— $\frac{1}{4}$  oz 15c

**ZINNIA ELEGANS—Youth and Old Age**

Of the easiest cultivation and should be in every collection. Half hardy annuals.

**Dwarf Double Mixed.** Pkt 10c— $\frac{1}{4}$  oz 25c

**Crispa, Crested Mixed.** Pkt 10c— $\frac{1}{4}$  oz 35c

**Double Giants**—Crimson, blushing pink, golden yellow, scarlet, white and special mixed.

Pkt 10c—oz \$2.00



# PERENNIAL FLOWER SEEDS

*Biennials are listed herewith as they are in their perfection the second year*

**HARDY PERENNIALS** are used for permanent garden and landscape effects, and many of them also produce choice cut flowers. The old fashioned perennials are in high favor now for Beds and Borders and the new and improved varieties are wonderful advancements over the older types. Most Perennial and Biennial Plants do not flower until the second year and for immediate results one year old plants of all the most desirable sorts can be furnished. See Plant Department.

## AGROSTEMMA

**Coronaria**—Strikingly beautiful for beds, ribbons and borders. Its graceful flowers remain fresh a long time after being cut, and are very handsome in bouquets. Thrives in any soil. Perennial.

Pkt 10c—oz \$1.00

## ALYSSUM

**Saxatile**—Showy, bright yellow flowers, blooms the first season if sown early indoors.

Pkt 10c— $\frac{1}{4}$  oz 35c

## ANCHUSA—*Italica*

**Dropmore**—A splendid plant for hardy borders, growing to a height of about 5 feet. Remarkable for its free and continuous flowering habit. Flowers are of a beautiful gentian-blue color.

Pkt 15c—oz \$2.00

## ANTIRRHINUM— *Snapdragon*

One of the most useful and showy of border plants of almost every color, and striped as beautifully as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

**Firefly**—Scarlet and white. Tall.

Pkt 10c— $\frac{1}{4}$  oz 50c

**Queen Victoria**—New large; pure white. Tall.

Pkt 10c— $\frac{1}{4}$  oz 50c

**Luteum**—Yellow. Tall. Pkt 10c— $\frac{1}{8}$  oz 35c

**Tall, Finest Mixed** Pkt 10c— $\frac{1}{8}$  oz 25c

**Dwarf, Finest Mixed** Pkt 10c— $\frac{1}{8}$  oz 25c

## ARABIS—*Rock Cress*

One of the earliest and prettiest Spring flowers unequaled for rockeries or edging, withstands the drought, pure white flowers.

**Alpina.** Pkt 10c— $\frac{1}{4}$  oz 35c

## ASPARAGUS SPRENGERI—*Emerald Feather*

One of the best of the new so-called ferns. Feathered foliage; useful for bouquets, wreaths or sprays, remaining perfect for weeks after cutting. Grows freely the whole year round (For plants see Plant Department.)

Pkt 10c—50 seeds 25c

## ASPARAGUS PLUMOSUS—*Asparagus Fern*

One of the prettiest house plants. The leaves are bright green, gracefully arched, surpassing Maidenhair Ferns in grace, delicacy of texture and richness of color. (For plants see Plant Department.) Pkt 25c—50 seeds 50c

## ASTERS—Hardy Perennial—*Michaelmas Daisy*

Handsome flowers of easy culture; appear at a time when flowers are scarce; make attractive garden display; are very useful as cut flowers. Large flowering mixed. Pkt 10c— $\frac{1}{4}$  oz 50c

## BEGONIA

Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Try our select seed.

**Gracilis**—Pink., White, Bonfire, Luminosa.

Pkt 25c

**Salmon Queen.**

Pkt 25c

**Rex (Diadema Polyphylla)**—Ornamental leaved varieties. Mixed.

Pkt 25c

## CALCEOLARIA

Very handsome and much admired. Produces a profusion of beautiful flowers of unique form and colorings. Fine for pot culture.

**Hybrida**—Finest mixed Pkt 50c

## CANNA—*Indian Shot*

Ornamental, tropical looking plants of easy culture; large and beautiful flowers. For Canna Bulbs, see Plant Department.

**Crozy's Dwarf Mixed.** Pkt 10c—oz 40c

## CANTERBURY BELL—*Campanula*

Very ornamental garden plants of the easiest culture; hardy biennial, two and a half feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades.

**Media Single**—Blue, rose, white or mixed.

Pkt 10c— $\frac{1}{4}$  oz 35c

**Calycanthema**—(Cup and Saucer) White, rose, light blue or mixed. Pkt 10c— $\frac{1}{4}$  oz \$1.00

**Persicifolia**—Very fine, blooms in June. Blue or White. Pkt 15c— $\frac{1}{8}$  oz \$1.00

**Pyramidalis**—Stately hardy plant for pot culture or garden. Blue or white. Pkt 10c— $\frac{1}{4}$  oz 35c

## CARNATION—*Dianthus Caryophyllus*

Carnations are Tender Perennials, being easily Winter killed. Splendid for cut flowers, deliciously fragrant.

Fine Plants in Season. See Plant Dept.

**Chabaud Everblooming**—Flowers in five to six months from sowing. Extra Choice Double Mixed. Pkt 15c

**Margaret Carnations**—Bloom in 4 mos. from seed. Finest double mixed. Pkt. 10c— $\frac{1}{8}$  oz 50c

**Giant or Malmaison**—Mixed. Pkt 25c

## CINERARIA

Magnificent and indispensable flowering plants for the window garden. The flowers of white, blue, violet and crimson shades, covering the plant with a sheet of bloom.

**Hybrida**—Grandiflora, prize mixed. Extra choice. Pkt 50c

**Fine Mixed** Pkt 15c

**Dusty Miller (Maritima Candidissima)**—Beautiful silvery-leaved border plant; half hardy perennial. Pkt 10c— $\frac{1}{4}$  oz 35c

## COIX LACHRYMAE—*Job's Tears*

A broad-leaved, ornamental grass, having large tear-shaped, hard, shining, pearl-gray seeds. Pkt 10c—oz 25c

## COLUMbine—*Aquilegia*

Universal favorite for hardy borders and beds. **Candidissima**—Large snowy white.

Pkt 10c— $\frac{1}{16}$  oz \$1.00

**Coerulea Hybrid**—Blue shades.

Pkt 10c— $\frac{1}{16}$  oz 75c

**Rose Queen.** Pkt 15c— $\frac{1}{16}$  oz \$1.00

**Chrysanthia**—Golden yellow. Pkt 10c— $\frac{1}{16}$  oz 75c

**Chrysanthia**—Grandiflora Alba Beautiful pure white. Good for forcing. Pkt 10c— $\frac{1}{16}$  oz 75c

**Skinneri**—Orange, red. Splendid cut-flower variety. Pkt 10c— $\frac{1}{16}$  oz 75c



# Perennial Flower Seeds (Continued)

## COLEUS

Probably the best known and most popular of ornamental foliage plants. Leaves of all shades and colors. Tender perennial.

**Extra Choice Mixed.**

Pkt 25c

## COREOPSIS

**Lanceolata**—Large, showy, bright yellow flowers produced in great abundance from June till frost, fine for cut flowers. Pkt 10c— $\frac{1}{4}$  oz 25c

## CYCLAMEN

Beautiful Winter and Spring flowering plants for the window and greenhouse. Not only are the flowers of striking beauty, but the foliage is also highly ornamental. The colors range through shades of pink, crimson, white, spotted, etc. Delicately fragrant. Bulbs in season.

**Giganteum Hybridum**—White with carmine eye, dark red, salmon-pink. Pkt 25c

## DAISY—*Bellis Perennis*

A well-known and popular low-growing plant bearing beautiful flowers. Hardy perennial.

**Longfellow**—Double pink.

Pkt 15c— $\frac{1}{16}$  oz 50c

**Giant Double Monstrosa**—Red, white, pink or mixed. Pkt 15c— $\frac{1}{16}$  oz 60c

**Double Quilled**—Dark red.

Pkt 15c— $\frac{1}{16}$  oz \$1.00

**Shasta Alaska**—Very hardy; profuse bloomers; flowers very large and borne on long stems, single; petals pure glistening white, dark center. Pkt 15c

## DAHLIA

A magnificent, Fall-blooming tuberous-rooted plant, which can be readily started from seed.

**Double Mixed.** Pkt 10c— $\frac{1}{4}$  oz 60c

**Single Mixed.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Cactus**—Flowers odd and fantastic in shape; all colors.

**Fine Mixed.** Pkt 20c— $\frac{1}{8}$  oz 50c

## DATURA

Large, strong-growing plants, trumpet-shaped flowers, white, sometimes tinted with blue. Roots can be preserved in the cellar, like Dahlias.

**Fastuosa Huberiana**—Double mixed.

Pkt 10c—oz \$1.00

**Cornucopia**—Very fragrant. Pkt 10c—oz \$2.00

## DELPHINIUM—*Larkspur*

A very ornamental class of profuse blooming plants. Their tall spikes of many-colored flowers produce a striking effect when planted in groups.

**Chinese Azureum**—Blue; fine for cutting.

Pkt 10c— $\frac{1}{4}$  oz 35c

**Chinese Blue Butterfly.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Chinese Album White.** Pkt 10c— $\frac{1}{4}$  oz 50c

**Belladonna**—Light blue. Pkt 10c— $\frac{1}{4}$  oz \$1.25

**Formosum**—Dark blue. Pkt 10c— $\frac{1}{4}$  oz \$1.00

**Cardinale**—Brilliant scarlet.

Pkt 10c— $\frac{1}{4}$  oz \$1.00

## DRACAENA

Ornamental greenhouse plant. Very desirable.

**Indivisa Lineata**—Narrow, dark foliage.

Pkt 10c

## DIGITALIS—*Fox Glove*

A tall growing biennial, with large leaves and spikes of vari-colored and spotted flowers. A magnificent plant. Fine for borders or background. Easily grown.

**Gloxiniflora**—Mixed. Pkt 10c— $\frac{1}{4}$  oz 35c

## EDELWEISS—*Leontopodium Alpinum*

The true white-leaved Edelweiss of the Alps, 6 inches tall. Pkt 25c

## ESCHSCHOLTZIA—*California Poppy*

These are among our most beautiful and popular perennials, although often grown as annuals; being of the easiest culture and giving great satisfaction. They commence to bloom within a few weeks' time from Spring-sown seed and continue to flower profusely until late in the Autumn, forming nice, bushy plants, one foot high.

**Single White or Mixed.** Pkt 10c—oz 40c  
Geisha. Pkt 10c—oz \$1.00

**Golden West**—Yellow with orange center—flowers large. Pkt 10c—oz 50c

**Carmine King.** Pkt 10c—oz \$1.00

**Mandarin**—Inner side of petals rich orange, outer side brilliant scarlet; very striking; single. Pkt 10c—oz 25c

**Vesuvius.** Pkt 10c—oz 75c  
(For other sorts see Poppies.)

## FOR-GET-ME-NOT—*Myosotis*

Beautiful Spring favorites, of easy growth, bearing clusters of lovely, small flowers. They are hardy enough to remain in the open ground except in very cold latitudes. Fine for borders and shady situations.

**Alpestris**—Of trailing habit, with pretty flowers. Blue or mixed. Pkt 10c— $\frac{1}{4}$  oz 35c

**Victoria**—Flowers large, bright azure blue; fine for borders and pots. Pkt 10c— $\frac{1}{8}$  oz 50c

**Semperflorens**—Dwarf: continuous bloomer; blue. Pkt 10c— $\frac{1}{8}$  oz 50c

## GENTIANA

Fine, showy flowers. Should be in every flower garden. Hardy.

**Acaulis.** Pkt 10c

## GERANIUM

A half-hardy perennial, easily and quickly grown from seed.

**Zonale**—Extra choice, single mixed, large flowering. This is the well-known bedding Geranium. Pkt 10c

**Lady Washington**—(*Pelargonium*) Foliage green; flowers large, handsome, oddly marked; fine for pot culture. Finest mixed Pkt 25c

## GERBERA HYBRIDS—*Jamesonii*—*Transvaal Daisy*

The plants are hardy and as vigorous growing as the original type, producing flowers which include a wonderful range of brilliant colors.

Pkt 25c

## GEUM—*Chiloense*

Hardy perennial. Free-blooming plants. Fine for bouquets.

**Scarlet Semi-Double** Pkt 10c



# Perennial Flower Seeds (Continued)

## GAILLARDIA—Blanket Flower

Exceedingly beautiful, showy plants, one to two feet high. Grown in masses they are especially effective; large flowers, two or three inches across, produced from early Summer until frost; unrivaled for cutting. Also see Annuals.

**Grandiflora Maxima**—Perennial. Mixed.  
Pkt 10c— $\frac{1}{4}$  oz 25c

## GREVILLEA ROBUSTA—Silk Oak

Very beautiful and graceful foliage plant with fern-like foliage—a splendid pot plant.

Pkt 10c—oz \$1.25

## GYPSOPHILA—Baby's Breath

A pretty, free-flowering plant. Fine for bouquets.

**Paniculata**—Foliage fine; covered with tiny pure white flowers. Hardy, perennial.  
Pkt 10c— $\frac{1}{4}$  oz 25c

## HOLLYHOCK, or Althaea

The modern Hollyhock is quite different and much more beautiful than the plant of twenty years ago, being much more compact in growth; the flowers are larger, richer colored, and the double varieties are fuller and of better form. For a background to a flower garden there can be nothing better. Hardy perennials; five feet high.

**Chaters**—Superb strains. Double varieties of greatest perfection.

**Scarlet, Rose-Pink, Maroon, Yellow, White, Mixed.** Pkt 10c— $\frac{1}{4}$  oz 75c

## HELIOTROPE—Cherry Pie

Delightfully fragrant, free-blooming, tender, perennial plants. Splendid for bedding or pot culture. One foot high; of spreading habit. The fragrance of its flowers cannot be excelled in exquisite delicacy. Invaluable for bouquets.

**Choice Mixed.** Pkt 10c— $\frac{1}{8}$  oz 40c

**Mammoth Flowered**—Mixed, very fine.  
Pkt 15c— $\frac{1}{8}$  oz 50c

## KUDZU VINE—Pueraria Thunbergiana

Beautiful Japan climber, hardy perennial with fragrant purplish-violet, wisteria-like flowers.

Pkt 10c

## LANTANA

A free-flowering shrubby plant, suitable for out-door or pot culture. The flowers emit an agreeable odor and are of many shades of purple, orange and white. Half-hardy perennial.

**Hybrida Fine Mixed.** Pkt 10c— $\frac{1}{4}$  oz 35c

## PINK—Dianthus

The Dianthus family embraces some of the finest of all flowering plants. The blooms are of the richest and most pleasing colors, and nothing can surpass the exquisite fragrance of some varieties. They are hardy, and become perennial in warm climates.

**Chinensis**—Single mixed. Pkt 10c— $\frac{1}{4}$  oz 15c

**Chinensis**—Double mixed. Pkt 10c— $\frac{1}{4}$  oz 25c

**Hedgewigii**—Single mixed. Color varies from richest velvety crimson to delicate rose.

Pkt 10c— $\frac{1}{4}$  oz 25c

**Hedgewigii**—Double mixed. Large Flowering splendid. Pkt 10c— $\frac{1}{4}$  oz 50c

**CARNATION PLANTS IN SEASON.** We offer a fine collection of the choicest varieties.  
See Plant Department.

## LEMON VERBENA

Every garden should have a few plants of this fragrant favorite. Its pale green foliage goes well with any flower.

Pkt 10c

## LOBELIA

**Cardinalis**—Flowers rich red; dark green foliage. Especially valuable for border decoration.

Pkt 10c— $\frac{1}{8}$  oz 75c

## LUPINUS

Shrubby plants, bearing long spikes of various colored flowers.

**Perennial**—Mixed. Pkt 10c—oz 40c

## LINUM—Crimson Flax

**Grandiflorum Rubrum.** Pkt 10c—oz 35c

## LYCHNIS

**Rose Champion**--Jerusalem Cross—There are few plants that produce more brilliantly colored blossoms than Lychnis. Are borne in clusters and continue fresh and brilliant for a long time. Hardy perennials, 1 to 3 feet high.

**Haageana Hybrida**—Mixed.

Pkt 10c— $\frac{1}{8}$  oz 35c

## MIMULUS

**Moschatus** or **Musk Plant**—Cultivated for its rich musky odor. Should have a rich soil and ample moisture. Hardy perennial.

Pkt 10c— $\frac{1}{8}$  oz \$1.00

**Tigrinus Nanus**, or **Monkey Flower**—Beautifully spotted. Mixed, all colors.

Pkt 10c— $\frac{1}{8}$  oz \$1.00

## PAMPAS GRASS—Glycerium Argenteum

A noble ornamental grass, easily grown from seed, producing majestic plumes that are invaluable for Winter decorations. See Plant Department.

Pkt 10c

## PASSIFLORA—Passion Flower

Most interesting and well-known climbers, bearing singularly beautiful flowers.

**Blue.** Pkt 10c— $\frac{1}{4}$  oz \$1.00

## PENTSTEMON—Beard Tongue

Beautiful, hardy, perennial, herbaceous plant with extremely brilliant blooms. Their bell shaped flowers are borne on long spikes, and are produced abundantly all Summer.

**Mixed.** Pkt 10c— $\frac{1}{4}$  oz \$1.00

## PEAS—Perennial—Lathyrus Latifolius

In general appearance these are the same as Sweet Peas, but the flowers are not so fragrant; they bloom through a long season, are perfectly hardy, and will live for years.

**Mixed.** Pkt 10c—oz 35c

## Hedgewigii Diadematus Fireball

Extra double brilliant dark scarlet. Very beautiful.

Pkt 10c— $\frac{1}{8}$  oz 50c

## Hedgewigii Dwarf Snowball

Double white.

Pkt 10c— $\frac{1}{8}$  oz 50c

## Hedgewigii Laciniatus

Fine single fringed, finest assorted colors.

Pkt 10c— $\frac{1}{8}$  oz 50c



# Perennial Flower Seeds (Continued)

## PHLOX DECUSSATA—*Perennial*

Hardy, perennial; mixed Pkt 10c— $\frac{1}{8}$  oz 50c

## POPPIES—*Perennial*

*Bracteatum*—Hardy perennial; very showy red. Pkt 10c— $\frac{1}{4}$  oz 35c

*Iceland, or Nudicaule*—These are of a very graceful, neat habit, with bright green, fern-like foliage, formed in tufts, from which issue slender stalks about 12 in. high, bearing yellow, white or orange-scarlet flowers in endless profusion and most useful for cutting; hardy perennial. Mixed colors. Pkt 10c— $\frac{1}{4}$  oz 35c

*Oriental*—*Hybrida* mixed. Very hardy and early flowering. Pkt 15c— $\frac{1}{4}$  oz 50c

## PRIMULA—*Primrose*

The first three varieties named below are hardy, early blooming garden plants, and the others, beautiful winter blooming house plants. Their various forms and blending of colors are exceedingly pleasing and effective. They thrive best in a sandy loam and leaf mold.

*Polyanthus*—Early blooming, dwarf growing plants. Valuable for outdoor bedding. Mixed colors. Pkt 10c— $\frac{1}{8}$  oz \$1.00

*Vulgaris*—Yellow, common, English Primrose. Pkt 10c— $\frac{1}{4}$  oz \$1.00

*Japonica, or Japanese Primrose*—The beautiful, large, various colored flowers stand in whorls, pyramidically arranged on short flower stems one foot high; though perennial, new plants flower more freely, and seeds should be sown every year. Mixed varieties. Pkt 15c— $\frac{1}{8}$  oz \$1.00

*Sinensis, or Chinese Primrose*—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for Winter and Spring flowers in the house; easily grown; free bloomers. Finest mixed. Pkt 25c— $\frac{1}{2}$  oz \$2.00

*Sinensis*—Double finest mixed. Pkt 50c

*Obconica Grandiflora*—A lovely profuse bloomer, bearing beautiful single flowers. This is really an ever-blooming plant, producing elegant clusters of flowers continuously throughout the year. Fine mixed. Pkt 15c— $\frac{1}{8}$  oz \$1.50

## PYRETHRUM

Very ornamental plants, for both foliage and flowers.

*Parthenium Aureum, or Golden Feather*. Beautiful, gold leaved, flower white. Pkt 10c— $\frac{1}{4}$  oz 35c

## RUDBECKIA—*Golden Glow*

*Newmani*—Brilliant orange yellow petals around a large dark center. A beautiful and useful perennial for borders or as a single group. Pkt 15c

*Fulgora*—Orange yellow. Perennial. Pkt 15c

*Lacinata*—Double. Golden yellow. Pkt 25c

## SMILAX—*Medeola Asparagoides*

Charming, tender, perennial climber for greenhouse or window gardens. The foliage and stems are of pleasing light green; very graceful; excellent for decoration. (See Plants.) Pkt 10c— $\frac{1}{4}$  oz 25c

## SNAPDRAGON—See *Antirrhinum*

## STATICE—*Sea Lavender*

Splendid for border or rockery, producing panicles of minute flowers, can be dried and used for Winter bouquets. Mixed Pkt 10c

## SWEET ROCKET—*Hesperis*

An old, hardy garden favorite. Fragrant white flowers; 2 to 3 feet. Pkt 10c— $\frac{1}{4}$  oz 15c

*Sweet Sultan*—See *Centaurea*.

## SWEET WILLIAM—*Dianthus Barbatus*

A well-known, remarkably free-flowering plant of brilliant colors, ranging from snow white to darkest crimson and purple. They emit a very delicate and refreshing fragrance. Hardy perennial.

*Single Mixed*—Very beautiful.

Pkt 10c— $\frac{1}{2}$  oz 60c

*Dunnettii*—Dark crimson, single.

Pkt 10c— $\frac{1}{2}$  oz 60c

*Pure White*—Single Pkt 10c— $\frac{1}{2}$  oz 60c

*Double Mixed*. Pkt 10c— $\frac{1}{2}$  oz \$1.00

## TRITOMA—*Red Hot Poker*

This is a fine, handsome plant. It is hardy, though requiring some protection through the Winter. The flowers are produced in large spikes of brilliant rich colors. Cut flowers keep a long time. Half-hardy perennial.

*Uvaria*—Dazzling orange red.

Pkt 15c—oz 75c

## VALERIANA—*Garden Heliotrope*

Fine border plants; sweet scented flowers.

*Red.*

Pkt 10c— $\frac{1}{4}$  oz 25c

## VINCA—*Old Maid*

Tender perennial. Fine for pot culture. Flowers white and pink.

*Mixed.*

Pkt 10c— $\frac{1}{4}$  oz 50c

## VIOLET

*Viola Odorata* is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating, succeeds best in partially-shaded moist places

*Blue*—Very fragrant. Pkt 10c— $\frac{1}{8}$  oz 50c

*The Czar*—Finest forcing Violet. Very large. Dark blue.

Pkt 15c

## WALL FLOWER—*Cheiranthus Cheri*

Produces spikes of beautiful, exceedingly fragrant flowers. Half hardy perennials.

*Goliath*—Single, extra large; fine dark brown, very early; fine for forcing. Pkt 10c— $\frac{1}{4}$  oz 50c

*Mixed, Single*—Large flowering.

Pkt 10c— $\frac{1}{4}$  oz 25c

*Finest Tall Double Mixed*—Branching.

Pkt 10c— $\frac{1}{8}$  oz 75c

**PERENNIALS** are permanent and increase rapidly, are hardy everywhere and require very little attention. We can furnish fine plants in season. See plant department



## CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position

### Annual Bedding Plants or Tall Border Plants 1 to 2 feet

Ageratum, Tall.....	blue, white or mixed
Asters.....	various colors
Balsam.....	various colors
Brachycome.....	blue, white, rose
Browallia.....	blue and white
Calendula.....	mixed
Candytuft.....	various colors
Celosia.....	crimson
Centaurea.....	yellow, rose
Chrysanthemum.....	yellow, white, gold
Clarkia.....	pink, scarlet
Eschscholtzia (California poppy).....	crimson, white, yellow
Four O'Clock.....	various colors
Gaillardia.....	orange, scarlet
Gilia.....	white, lilac rose
Godetia.....	variegated rose and white
Gypsophila (for bouquets).....	white
Linum (scarlet flax).....	scarlet
Marigold.....	yellow, red, brown and variegated
Mignonette.....	white, yellow, red
Nasturtium, dwarf.....	various colors
Nigella (Love in a mist).....	
Petunia.....	various colors
Poppy.....	various colors
Phlox.....	various colors
Scabiosa.....	white, lilac, carmine and maroon
Schizanthus.....	various colors
Salvia.....	scarlet
Stocks (10 weeks).....	all colors
Viscaria.....	various colors
Zinnia.....	various colors

### Everlasting Flowers

Acroclinium.....	all colors
Globe Amaranth, Gomphrena.....	various colors
Helichrysum.....	various shades
Rhodanthe.....	pink, white
Statice.....	white, blue and yellow

### Tall Growing Plants for Grouping—Annual From 2½ feet up

Amaranthus.....	scarlet
Calliopsis.....	yellow, brown, maroon
Castor Bean.....	
Cosmos.....	white, red pink
Euphorbia.....	
Kochia.....	
Larkspur.....	various colors
Nicotiana.....	white
Rudbeckia.....	yellow
Salpiglossis.....	various colors
Scabiosa Grandiflora.....	all colors
Sunflower.....	yellow

### Low Edging Plants—Annual

Ageratum Dwarf.....	blue, white or mixed
Alyssum.....	white
Bulbs.....	all colors
Calliopsis, Tiger Star.....	reddish brown
Candytuft.....	various colors
Celosia, Dwarf.....	
Centaurea, Dusty Miller.....	
Dianthus.....	various colors
Lobelia Compacta.....	blue
Mignonette.....	white, yellow, red
Nemophila.....	blue
Pansy.....	all colors
Portulaca.....	yellow, pink, white, scarlet
Verbena.....	various colors

### Climbing Vines—Annual

Balloon Vine.....	white
Scarlet Runner Bean.....	scarlet
Canary Bird Vine.....	yellow
Cypress Vine.....	
Gourds.....	
Moonflower.....	white
Morning Glory.....	white
Nasturtium, Tall.....	various colors
Sweet Peas.....	all colors
Wild Cucumber.....	

### Bedding Plants—Perennial—1 to 2 feet high

Agrostemma.....	pink
Aster.....	various colors
Begonia.....	various colors
Calceolaria.....	various shades and colors
Calla.....	all colors
Candytuft.....	
Carnation.....	yellow, white, red, pink and variegated
Cineraria.....	various colors
Coleus.....	
Columbine.....	yellow, violet, rose
Daisy (Shasta).....	white
Gaillardia.....	yellow, orange, scarlet
Geum.....	scarlet
Linum.....	various colors
Lychnis.....	scarlet
Pentstemon.....	various colors
Salvia.....	scarlet
Statice.....	white, blue, yellow
Stocks (perpetual).....	all colors
Sweet William.....	various colors
Tritoma.....	orange, red
Vinca.....	white, rose
Wallflower.....	various colors

### Low Edging Plants—Perennial, 6 to 12 inches high

Alyssum Saxatile.....	yellow
Anemone.....	various colors
Pinks.....	various colors
Daisy, English.....	various colors
Edelweiss.....	
For-get-me-not.....	blue
Oxalis.....	yellow, pink, lavender, white
Poppy, Iceland.....	white, orange, yellow
Primula.....	various colors
Pyrethrum.....	various colors
Viola.....	yellow, white and blue

### Tall Growing Shrub Plants—Perennial For Grouping from 2½ feet up

Abutilon.....	blue
Anchusa.....	various colors
Canna.....	various colors
Canterbury Bells.....	various colors
Chrysanthemum.....	various colors
Columbine.....	yellow, violet, rose
Dahlia.....	all colors
Delphinium.....	various colors
Digitalis.....	
Fuchsia.....	scarlet, white, pink
Geranium.....	various colors
Gladiolus.....	yellow
Goldenrod.....	red
Hollyhock.....	various colors
Lantana.....	red, white, yellow
Lavender.....	scarlet
Lobelia Cardinalis.....	shades of blue
Lupin.....	various colors
Poppy, Oriental.....	various colors
Phlox, Perennial.....	various colors
Scabiosa.....	various colors
Snapdragon, Tall.....	various colors
Wallflower.....	various colors

### Climbing Vines—Perennial

Ampelopsis, Boston Ivy and Virginia Creeper.....	...
Clematis.....	white, lavender, red
Cobea Scandens.....	violet
Kudzu Vine.....	

### For Rockeries, Hanging Baskets or Window Boxes

Asparagus Fern.....	...
Edelweiss.....	blue
For-get-me-not.....	blue
Ice Plant.....	blue
Lobelia Trailing.....	yellow
Mimulus.....	yellow
Nasturtium.....	various colors
Oxalis.....	yellow, white, pink, lavender
Portulaca.....	buff, orange and white
Thunbergia.....	various colors
Verbena.....	various colors
Petunia.....	various colors



**D**IAMOND QUALITY ROSES are large, sturdy, two-year-old, field-grown roses that will give you splendid flowers the first season. They are true to name and our list includes the best of the well known popular varieties, the most meritorious of recent novelties and the Gold Medal roses of famous European growers.

### Planting and Care

In our favored section, roses attain a perfection seldom equaled, but you cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions.

**SOIL**—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil mulch well with burnt earth and manure, rotted sod or leaf mold.

**FERTILIZER**—Our odorless fertilizer, Bone Meal, Tankage of Blood, will give excellent results and should always be applied after the plants start their growth.

**WATERING**—When setting out, water regularly until roots are well set; then about once a week unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

**PRICES**—35c roses, \$3.50 doz.; 40c roses \$4.00 doz.; 50c roses \$5.00 doz.; 60c roses \$6.00 doz.; 75c roses \$8.00 doz.; \$1.00 roses \$10.00 doz.

 We offer a splendid assortment of popular roses and the best of the new ones, and can secure any variety in commerce, *TRUE* to NAME.

## 12 Superb New Garden and Exhibition Roses

 Young plants 25c each, except sorts marked \* which are supplied only in 2-year-old. Fine 2-year Dormant Plants, not prepaid, 50c; \$5.00 per doz. unless otherwise priced.

**\*COUNTESS OF SHAFTESBURY**—(H. T.)—Bright, silvery carmine, mottled and flushed shell pink. Profuse bloomer.

**HADLEY**—(H. T.)—color, beautiful bright red. Very free and constant.

**HOOSIER BEAUTY**—Crimson scarlet with darker shadings, velvety texture. Bud long and pointed. Deliciously fragrant. **Each 75c**

**H. V. MACHIN**—(H. T.)—A splendid exhibition variety. Color, intense scarlet crimson. Well formed flowers of immense size.

**LADY MARY WARD**—(H. T.)—Free, vigorous and hardy, color rich orange, shaded deeper orange with metallic veneering.

**LOS ANGELES**—Described by the originator as "a flame pink toned with coral and shaded gold at base of petals." Buds long, pointed and lasting. The flowers are very large and the beauty of coloring does not fade. Flowers profusely all season on strong shoots. The foliage is a rich, luxuriant glossy green. Two-year field grown plants. **Each \$1.50** Every one should have Los Angeles.

**FINALLY**—Keep the surface well worked around the plants. This is as necessary as water or fertilizer. When planting cut back freely, and the bush will recover quickly.

**SHIPPING**—We always send all our two-year-old rose bushes charges collect by express or freight, packing them so they will carry safely even though they should be on the road for two weeks or more.

If necessary, we can send small two-year-old bushes by mail at an additional cost to cover postage, but in such cases we always prune the tops and roots ready for planting.

**GORGEIOUS**—Strong, vigorous growing with handsome olive-green foliage. Flowers very large, finely formed, produced freely on stout canes. Color deep orange-yellow, heavily veined with reddish copper. **Each \$1.00**

**MAD. EDOUARD HERRIOTT**—The famous winner of the Daily Mail Prize. The color being terra-cotta bronze and geranium red, a new combination of colors in a rose.

**OLD GOLD**—(H. T.)—Medium sized flowers of a vivid reddish orange color with coppery red and coppery apricot shadings.

**OPHELIA**—(H. T.)—Orange salmon buds, opening to flowers of dainty pink. The foliage is clean, dark and leathery—growth vigorous and free, producing long canes. Blooms early and continuously. **Each 60c**

**TIPPERARY**—Beautifully formed buds of a bright canary yellow, produced with great freedom. A fine new Irish rose with all the requisites of a good garden and decorative variety. **Each 75c**



## BEAUTIFUL ROSES OF RECENT INTRODUCTION

The following are the recent novelties and Gold Medal roses that have proven their merit and are now generally in great demand.

**Young Plants** 25c ea., postpaid, except sorts marked \* which are supplied only in 2-year-old. Fine 2-year Dormant Plants, not prepaid, 50c; \$5.00 per doz., unless otherwise priced.

**BRITISH QUEEN**—(H. T.)—Pure white large, full flowers, opening freely. Fine for cutting.

**DUCHESS OF WELLINGTON**—(H. P.)—Intense saffron yellow stained with rich crimson which, as the flower develops, becomes deep coppery saffron yellow. Delightfully fragrant.

**EDWARD MAWLEY**—(H. T.)—Long pointed buds of deep, rich, velvety crimson, a decided advancement in its class.

**GEORGE DICKSON**—(H. T.)—Very strong and vigorous; velvety blackish crimson, with back of petals heavily veined with pure crimson maroon. Delightfully scented.

**\*JULIET**—(H. B.)—A wonderful combination of old gold on the outside of petals and a rich rosy red on the inside. Flowers large and full.

**LADY HILLINGDON**—(T.)—Deep apricot yellow, long and pointed bud, a fine forcing or garden rose, excellent for cutting.

**LADY ALICE STANLEY**—(H. T.)—Large, full flowers of lovely, deep coral, inside pale flesh. A free grower and a profuse bloomer.

**LOUISE CATHERINE BRESLAU**—(H. T.)—Coral red, shaded chrome yellow, opening to a flower of shrimp pink, shaded coppery orange.

**\*LYON**—(Pernetiana)—Beautiful shrimp pink with salmon and chrome yellow shadings. Large, coral red buds, beautifully formed.

**MADAME MELANIE SOUPERT**—(H. T.)—Splendid new orange yellow shaded pink; beautiful, long-pointed buds. Best of its color.

**MARQUIS DE SINETY**—(H. T.)—Deep saffron yellow, flushed reddish copper. Flower large, beautiful dark foliage.

**MELODY**—(H. T.)—Intense deep saffron yellow with primrose edges. Blooms medium size, very fragrant and freely produced.

**MRS. AARON WARD**—(T.)—A deep golden orange color shading out to lemon or creamy yellow at the edge of the petals. One of the most beautiful roses in existence.

**AUSTRIAN COPPER**—(A. B.)—A beautiful single rose of bright reddish copper. **Each 50c**

**IRISH ELEGANCE**—(S.)—Large, single, golden bronze flowers of great beauty, free and constant bloomer, with deep bronze foliage.

**Each 50c**

A splendid gift Rose that your friends will appreciate.



Los Angeles

**\*MRS. DAVID MCKEE**—(H. T.)—Creamy yellow, large, full and free. Best of its color.

**\*MRS. CORNWALLIS WEST**—(H. T.)—Large flowers, of rosy shell pink, changing to pure white with age. Growth vigorous and erect.

**\*MRS. E. J. HOLLAND**—(H. T.)—Deep salmon rose, shading lighter as the flower expands.

**MRS. FOLEY HOBBS**—(T.)—Immense flowers of ivory white, delicately tinged pink on edge of petals. A great bedding rose. **Each 60c**

**\*RAYON D'OR**—(Pern)—Long, pointed buds of deep orange-cadmium smeared claret, opening to a rich sunflower yellow. Foliage deep, glossy green; and free from mildew.

**SUNBURST**—(H. T.)—The finest of all yellow roses with long pointed buds. Color a superb Cadmium yellow with orange yellow center. The foliage is a handsome bronze green.

### Single Roses

**IRISH FIREFLAME**—(S.)—Deep orange splashed crimson, changing to fiery orange crimson; buds hold shape long time. **Ea. 50c**

**IRISH SIMPLICITY**—(S.)—Almost single; pure white, of immense size, with golden yellow anthers resembling a huge water lily. **Ea. 50c**



## GRAND GARDEN ROSES

*In this list you will find many famous prize winners and some of the most beautiful and popular roses.*

**Young plants 20c each, postpaid; two-year-old plants, not prepaid 40c each.**

**DOROTHY PAGE ROBERTS**—(H. T.)—Coppery pink, suffused with apricot yellow, very free and perpetual, a delightful garden rose.

**JONKHEER J. L. MOCK**—(H. T.)—Inside of petals red, outside silvery blush white. Rapid grower.

**JOSEPH HILL**—(H. T.)—Salmon pink shaded yellow. Outside petals yellow suffused copper.

**LADY ROBERTS**—(T.)—Rich apricot, base of petals coppery red, edges shaded orange.

**LE PROGRESS**—(H. T.)—Nankeen yellow, opening to saffron yellow; large and full.

**MADAME PHILLIPPE RIVOIRE**—(H. T.)—Beautiful apricot yellow and Nankeen yellow center, reverse of petals carmine; large and full.

**MAD. RAVARY**—(H. T.)—Clear orange yellow. Long pointed buds; flowers of fine form.

**MILDRED GRANT**—(H. P.)—Delicate pale pink, shading to silvery white in center; grand giant variety; rare beauty; pointed buds.

**MRS. A. R. WADDELL**—(H. T.)—Large, long pointed buds of a bright, rosy scarlet, opening to a rich apricot or salmon color.

**MY MARYLAND**—(H. T.)—Beautiful, bright pink, with paler edges; fragrant; robust grower.

**MRS. DAVID JARDINE**—(H. T.)—Delightful shade of bright, rosy pink, shading in outer petals to salmon pink; large, highly perfumed.

**PHARISAER**—(H. T.)—Rose, shaded salmon, flowers of large and finest form; blooms freely.

## Favorite Garden and Exhibition Roses

*A choice collection of the best standard varieties, "tried and true," sure to give satisfaction.*

**Young plants 15c each, postpaid; two-year field grown plants not prepaid, 35c—doz. \$3.50.**

**AMERICAN BEAUTY**—(H. P.)—One of the largest, sweetest and best; rich rosy crimson, shaded and veined in a most charming manner.

**AVOCA**—(H. T.)—Deep scarlet crimson flowers of perfect form; very fragrant.

**BESSIE BROWN**—(H. T.)—Creamy white; large, full, of very fine form. An exhibition rose.

**BETTY**—(H. T.)—Beautiful coppery rose color, overspread with golden yellow. Fragrant.

**COUNTESS OF GOSFORD**—(H. T.)—Clear salmon pink, base of petals shading to saffron yellow, very vigorous; perpetual bloomer.

**DEAN HOLE**—(H. T.)—Beautiful silvery carmine, shaded bright golden pink. Free bloomer.

**ETOILE DE LYON**—(T.)—Sweet scented; color, rich golden yellow; blooms freely.

**FLORENCE PEMBERTON**—(H. T.)—Creamy white, suffused pink. Very large and full.

**FRANZ DEEGAN**—(H. T.)—This beautiful yellow is a fine grower, having the good habit of throwing up numerous heavy canes.

**GENERAL MCARTHUR**—(H. T.)—Dazzling crimson scarlet; delicious perfume and magnificent foliage. Blooms in great profusion.

**GRUS AN TEPLITZ or VIRGINIA R. COXE**—(H. T.)—Color, fiery crimson, with a dark velvety sheen, very fragrant. Free blooming.

**J. B. CLARK**—(H. T.)—Flowers are intense scarlet shaded blackish crimson, of giant size, finely formed and fragrant; growth vigorous.

**KAISERIN AUG. VICTORIA**—(H. T.)—Elegant, large pointed buds; large, full double flowers; color delicate creamy white; fragrant.

**KILLARNEY**—(H. T.)—An exquisite shade of deep shell-pink lightened with silvery pink.

**LA DETROIT**—(H. T.)—A beautiful shell-pink shading in center to soft rose pink. Reverse of outer petals creamy-flesh tint, strong grower.

**LADY ASHTOWN**—(H. T.)—One of the finest pinks of a rich, deep, silvery tone; flowers large.

**LADY BATTERSEA**—(H. T.)—Long, oval buds, sharply pointed; bright, cherry crimson.

**LA FRANCE**—(H. T.)—A silvery rose, changing to pink. A general favorite. Sweetest of all roses.

**MAD. ABEL CHATENAY**—(H. T.)—Color, beautiful rosy carmine, with darker shadings.

**MADAME CAROLINE TESTOUT**—(H. T.)—Bright satiny pink; very fragrant and free in bloom. The official "Carnival Rose."

**MAMAN COCHET**—(T.)—Color is a deep rosy pink, the inner side of the petals silvery rose.

**MARIE VAN HOUTTE**—(T.)—Of a fine faultless straw-yellow color; outer petals washed and outlined with a bright rosy carmine.

**MME. LEON PAIN**—(H. T.)—A silvery flesh with yellowish orange center; large and full.

**PAPA GONTIER**—(T.)—A vivid cherry red color, shaded yellow, reverse of petals crimson.

**PERLE DES JARDINS**—(T.)—A clear, golden yellow, an indescribably rich, beautiful shade.

**PRINCE DE BULGAIRES**—(H. T.)—Very vigorous grower, with large, bright green foliage. Outer petals are extremely large, of superb rosy flesh color; bright red center.

**PRES. W. R. SMITH**—(T.)—(Maidenblush)—Elegantly shaped buds and open flowers of exquisite silvery pink color; sweetly perfumed.

**RICHMOND**—(H. T.)—Vivid red buds, and flowers of the most perfect and desirable form.

**SAFRANO**—(T.)—Bright apricot yellow, tinged orange and fawn.

**SOUV. DE PIERRE NOTTING**—(T.)—Very large; elegant form; has a beautiful long bud; color, orange yellow, bordered in carmine rose.

**SOUV. DE PRESIDENT CARNOT**—(H. T.)—Lovely shell-pink, delicately tinted with gold fawn on rich creamy white. Superb for bedding.

**VISCOUNTESS FOLKESTONE**—(H. T.)—Color, delicately tinted flesh, almost white, with beautiful satin finish; strong stems.

**WHITE KILLARNEY**—(H. T.)—Long pointed buds of purest white and heavy wax-like texture opening to large full flowers; very lasting.

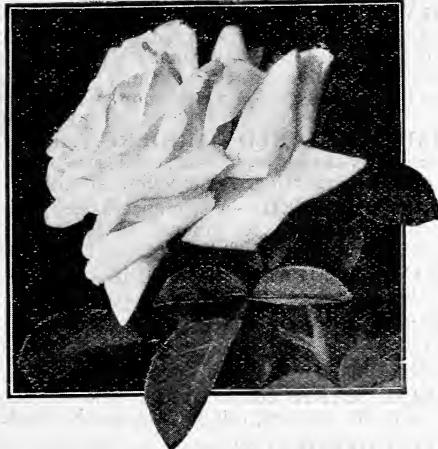
**WHITE LA FRANCE**—(H. T.)—This magnificent rose is a pure white La France, having just a breath of rose-tinted blush.

**WHITE MAMAN COCHET**—(T.)—Immense size, exquisitely fragrant; long, pointed buds.



## Finest Hardy Perpetual Roses

**F**OR Eastern Oregon and Washington or in sections where the winters are severe, this collection will thrive and bloom freely where the Tea and Hybrid Tea roses would not prove satisfactory. Young plants 15c each; set of 15 sorts, \$2.00, postpaid, except sorts marked \* which are supplied only in 2-year plants. Two-year-old plants not prepaid, 35c each; \$3.50 per doz.



**MARGARET DICKSON**—(H. P.)—White, with pale flesh center; large, shell-shaped petals; fragrant.

**MRS. JOHN LAING**—(H. P.)—A soft, delicate pink, with satiny tinge; very free flowering.

**PRINCE CAMILLE DE ROHAN**—(H. P.)—Dark, rich, velvety crimson, passing to intense maroon, shaded black; best of its color.

**PAUL NEYRON**—(H. P.)—Deep, shining rose, blooms freely, the largest variety in existence.

**BARONESS ROTHSCHILD**—(H. P.)—Flowers of immense size; color bright rosy pink.

**CAPTAIN HAYWARD**—(H. P.)—Immense flowers in great freedom, sweetly scented. Color deep glowing red shaded crimson.

**CONRAD F. MEYER**—(Rug.)—Beautiful silvery pink, very hardy, its handsome foliage makes it most valuable for a flowering hedge.

**FRAU KARL DRUSCHKI**—(H. P.)—The white American Beauty. Makes splendid buds and immense flowers; perfectly double.

**GLOIRE LYONNAISE**—(H. P.)—Color, chamois yellow, deepest at the center, passing to creamy white; large, full, sweet, very distinct.

**GENERAL JACQUEMINOT**—(H. P.)—Bright, shining crimson; very rich and velvety.

**HUGH DICKSON**—(H. P.)—Glowing crimson-shaded scarlet. A strong grower and perpetual bloomer (should be cut back freely).

**MABLE MORRISON**—(H. P.)—Of purest velvety white; very double and rounded.

**PINK DRUSCHKI**—(Geo. Arends)—(H. P.)—Moderately large full flower of beautiful bright pink. Is of free flowering habit and highly perfumed. Considered the best of the so-called pink Druschki.

**ULRICH BRUNNER**—(H. P.)—Extra large, bold flowers, full and globular; color, rich, glowing crimson, elegantly flamed with scarlet.

## Baby Rambler or Dwarf Polyanthus Roses

Young plants 15c each, postpaid; 2-year-old plants not prepaid, 35c each, except as noted.

**BABY RAMBLER**—(Dwarf Bush Type)—Not over 18 inches high, producing large trusses of light crimson flowers; clean dark green foliage.

**PINK BABY RAMBLER**—(Mrs. W. Cutbush)—Clusters of pretty double bright pink flowers; freely produced in panicles, always in bloom.

**CECILE BRUNNER**—Bright, rose, yellowish in center; very sweet; dwarf polyanthus.

**GEORGE ELGER**—Free blooming, erect growth, golden coppery yellow. **Each 40c**

**PERLE D'OR**—Clusters of dainty Nankeen yellow buds with orange center, very beautiful.

## Standard, or Tree Roses

Tree roses are budded, or grafted on hardy rose stocks about four feet high. They soon make good size heads, forming a small tree; desirable for planting as single specimens, in backgrounds or rows along walks or driveways.

Order any color or variety you wish and we will send it or give you a good substitute.  
**PRICE:** Tree or Standard Roses, \$1.50 to \$2.00 each, according to size of head.

## The Popular Rambler Roses

*The Rambler Roses are strong, vigorous climbers, growing ten to twelve feet high in one season.*  
**Young plants 15c each, postpaid; 2-year-old plants not prepaid, 35c each; doz. \$3.50.**

**FLOWER OF FAIRFIELD**—Brilliant crimson, base of petals white; a splendid grower and a great improvement over the old type.

**PHILADELPHIA RAMBLER**—An improved type of the favorite Crimson Rambler; color, deeper, and more brilliant; flowers double.

**VEILCHENBLAU (Blue Rambler)**—Large trusses of semi-double flowers, opening pink, but quickly change to a violet, or steel blue.

**DOROTHY PERKINS**—Polyanthus type; a beautiful bright shell-pink; large double flowers.

**RED DOROTHY PERKINS**—Fine crimson rambler; glossy green foliage; never troubled with mildew. Flowers very double.

**TAUSENDSCHEIN**—A lovely shade of soft pink, free and vigorous; splendid foliage.

**YELLOW RAMBLER**—Pure, bright yellow;

same type and growth as Crimson Rambler.

**WHITE DOROTHY**—A sport from Dorothy Perkins, possessing all the fine qualities of that grand variety, but having pure, white flowers.

**DIAMOND LAWN GRASS MIXTURE** makes an evergreen velvety turf. Special mixtures to order.



## Climbing and Pillar Roses

Young plants 15c ea., postpaid, except sorts marked \* which are supplied only in 2-year plants. Two-year-old bushes, field grown, not prepaid, 35c ea.; doz. \$3.50 (except as noted).

**AARD'S PILLAR**—Rich velvety crimson; fine large, full flower, cupped form; a fine, hardy, free-blooming, free-growing garden rose.

**AMERICAN PILLAR**—(WICH)—A beautiful bright pink with yellow anthers.

**BEAUTY OF GLÄZENWOOD**—Bronzed yellow or copper and fawn color. Hardy and free.

**CLI AMERICAN BEAUTY**—Rich crimson color; delightful fragrance; very free bloomer.

**CLIMBING BELLE SIEBRECHT**—(C. H. T.)—Flowers identical with bush type; vigorous climber; hardy.

**CLIMBING CECIL BRUNNER**—Clusters of pretty pink flowers, especially beautiful in bud.

**\*CLIMBING FRAU KARL DRUSCHKI**—Identical to bush type; good pillar rose. Ea. 50c

**CLIMBING KAISERIN** (Mrs. Robert Peary)—Flowers large, ivory white, of heavy texture.

**\*CLIMBING LA FRANCE**—Identical with the well known La France; vigorous climber.

**\*CLIMBING LADY ASHTOWN**—Vigorous climbing sport of this valuable rose. Each 50c

**CLI. MADAME CAROLINE TESTOUT**—Immense globular flowers of the same beautiful shade of pink as seen in the bush sort.

**CLIMBING METEOR**—Rapid grower; rich, dark, velvety crimson flowers.

**CLIMBING WHITE MAMAN COCHET**—Identical with bush type; vigorous free bloomer.

**\*DUCHESS D'AUERSTADT**—Fine rich yellow, flowers are large, full and open freely. Each 50c

**GAINSBOROUGH**—Graceful flower of dainty shell-pink color and satiny finish. Very hardy.

**GLOIRE DE DIJON**—Free flowering; delicate tea scent; color, a blending of amber.

**SILVER MOON**—Magnificent large white semi-double blooms of good substance with golden stamens. Flowers are carried on long stems. Foliage is abundant, delightfully fragrant, of a bronze green color and is immune to mildew. Each 50c

**MADAME ALFRED CARRIERE**—Full flowers, very double and sweet; color, rich, creamy white, faintly tinged pale yellow and blush.

**MARECHAL NEIL**—A magnificent deep golden yellow variety; so famous as to need no description; finest of its color. Each 40c

**CLIMBING PAPA GONTIER**—(T.)—A "Native Sport" from this favorite variety.

**PINK CHEROKEE**—Lovely single blossoms 3 to 5 inches in diameter, saucer shaped and of a beautiful shade of light pink.

**REINE MARIE HENRIETTE**—Flowers large and full; glowing crimson, elegantly shaded.

**RED CHEROKEE**—Growth and habit similar to pink and white Cherokee.

**WHITE CHEROKEE**—Strong erect grower. Large pure white flowers borne profusely.

**WILLIAM A RICHARDSON**—Rich coppery yellow flushed carmine; a beautiful variety.

**DR. VAN FLEET**—Large, fully double blooms of a dainty flesh pink with rosy center. Flowers of perfect form with reflex petals and are carried on long stems, making this a desirable variety for cutting. Foliage is luxuriant bronze green. Each 50c

## ALPHABETICAL LIST OF ROSES

	Price	Page		Price	Page		Price	Page
American Beauty.....	\$ .35	62	Irish Elegance.....	\$ .50	61	Mabel Morrison.....	\$ .35	63
Austrian Copper.....	.50	61	Irish Fireflame.....	.50	61	Maman Cochet.....	.35	62
Avoca.....	.35	62	Irish Simplicity.....	.50	61	Margaret Dickson.....	.35	63
Baby Ramblers.....	.35	63	J. B. Clark.....	.35	62	Marie Van Houtte.....	.35	62
Baroness Rothschild.....	.35	63	Jonkheer J. L. Mock.....	.40	62	Marquis de Sintey.....	.50	61
Belle Siebrecht.....	.35	103	Joseph Hill.....	.40	62	Melody.....	.50	61
Bessie Brown.....	.35	62	Juliet.....	.50	61	Mildred Grant.....	.40	62
Betty.....	.35	62	Kais. Aug. Victoria.....	.35	62	Mme. Leon Pain.....	.35	62
British Queen.....	.50	61	Killarney.....	.35	62	My Maryland.....	.40	62
Capt. Hayward.....	.35	63	Lady Alice Stanley.....	.50	61	Old Gold.....	.50	60
Cecile Brunner.....	.35	63	Lady Ashtown.....	.35	62	Ophelia.....	.60	60
Cli. Roses.....	—	64	Lady Battersea.....	.35	62	Papa Gontier.....	.35	62
Conrad F. Meyer.....	.35	63	Lady Hillingdon.....	.50	61	Paul Neyron.....	.35	63
Countess of Gosford.....	.35	62	Lady Mary Ward.....	.50	60	Perle des Jardins.....	.35	62
Countess of Shaftesbury.....	.50	60	Lady Roberts.....	.40	62	Perle D'Or.....	.35	63
Dean Hole.....	.35	62	La Detroit.....	.35	62	Pharisaeer.....	.40	62
Dorothy Page Roberts.....	.40	62	La France.....	.35	62	Pink Druschki.....	.35	63
Duchess of Wellington.....	.50	61	Le Progress.....	.4	62	Pres. W. R. Smith.....	.35	62
Edward Mawley.....	.50	61	Louise Cath. Breslau.....	.50	61	Prince de Bulgaire.....	.35	62
Etoile de Lyon.....	.35	62	Lyon.....	.50	61	Prince C. de Rohan.....	.35	63
Florence Pemberton.....	.35	62	Los Angeles.....	1.50	60	Rayon D'Or.....	.50	61
Franz Deegan.....	.35	62	Mad. Abel Chanteny.....	.35	62	Rambler Roses.....	.35	62
Frau K. Druschki.....	.35	63	Mad. Car. Testout.....	.35	62	Richmond.....	.35	62
Gen. Jacqueminot.....	.35	63	Mad. Edouard Herriott.....	.50	60	Safraano.....	.35	62
Gen. McArthur.....	.35	62	Mad. Melaine Soupert.....	.50	61	Souv. de P. Notting.....	.35	62
George Dickson.....	.50	61	Mad. Phillippe Rivore.....	.40	62	Souv. de Pres. Carnot.....	.35	62
George Elger.....	.40	63	Mad. Ravary.....	.40	62	Sunburst.....	.50	61
Gloire Lyonnaise.....	.35	63	Mrs. Aaron Ward.....	.50	61	Tipperary.....	.75	60
Gorgeous.....	1.00	60	Mrs. A. R. Waddell.....	.40	62	Tree Roses.....	—	63
Gruss an Teplitz.....	.35	62	Mrs. Cornwallis-West.....	.50	61	Ulrich Brunner.....	.35	63
Hadley.....	.50	60	Mrs. David Jardine.....	.40	62	Viscountess Folkestone.....	.35	62
Hoosier Beauty.....	.75	60	Mrs. David McKee.....	.50	61	White Killarney.....	.35	62
Hugh Dickson.....	.35	63	Mrs. E. J. Holland.....	.50	61	White La France.....	.35	62
H. V. Machin.....	.50	60	Mrs. Foley Hobbs.....	.60	61	White Maman Cochet.....	.35	62
			Mrs. John Laing.....	.35	63			



## Ornamental Climbing Vines



### Clematis

Clematis is one of the most beautiful and useful climbers. Their magnificent flowers, borne in great profusion in beautiful shades of lavenders, purples, reds and white, make them especially attractive. Clematis requires a rich loamy soil, but manure should not touch the roots. Cut out the weak and surplus branches in the spring, and tie the vine up well to its support.

**DUCHESS OF EDINBURG**—Double, white.

**LAWSONIANA**—Light blue.

**VILLE DE LYON**—Red.

**RAMONA**—Beautiful lavender, best of its color.

**MONTANA**—White, anemone-like flowers. May to July; very hardy, rapid grower.

**HENRYI**—Fine, large, creamy white flowers; a strong grower and very hardy.

**JACKMANII**—Intense violet purple, with a rich velvety appearance; distinctly veined.

**MAD. ED. ANDRE**—A beautiful new variety; flowers red, large and abundant.

Choice plants of above sorts, each 60c  
Large plants, each 75c to \$1.00, postpaid

**CLEMATIS PANICULATA**—A rapid and vigorous grower; it produces sheets of medium-sized, pure white flowers of the most pleasing fragrance; well adapted for covering trellises or fences.

Choice plants, each 35c to 40c; large, 50c to 60c.

### Honeysuckle

**BELGIAN**—Flowers yellow, blotched with red above; blooms all summer, fragrant. Each 50c

**JAPANESE**—Evergreen; fragrant flowers, white changing to yellow. Each 50c

**HALL'S**—Evergreen, very popular; white turning to yellow. Each 50c

### Jasmine

**JASMINE NUDIFLORUM**—Branches drooping, enveloped with bright yellow flowers before leaves appear. Each 60c

**JASMINE OFFICINALIS**—Free-blooming, pure white flowers, star shaped; foliage delicate; evergreen. Each 60c

**ANNUAL VINES** — Cobaea Scandens, Wild Cucumber, Canary Bird, Morning Glory, Nasturtiums, etc. — SEEDS AND PLANTS IN SEASON

### Wistaria

Choice Plants Each 50c to \$1.00

**W. SINENSIS**—(Chinese Wistaria)—Grows 15 to 20 feet in a season; has long pendulous clusters of pale blue flowers in May and June and in Autumn.

**WISTARIA CHINENSIS VARIEGATED**—

Yellow variegated leaves, pretty after flowering for the beautiful speckled foliage which is very attractive among other green foliage. Flower same as common Chinese Wistaria.

**W. MULTIJUGA**—Similar to Wistaria Sinensis except in color of flowers which are dark violet blue, borne in very long-racemes.

**WISTARIA MULTIJUGA PINK**—Same as above only flowers are light pink. A very rare sort. \$1.50 to \$2.50

**W. BRACHYBOTRYS**—White flowering.

### Ampelopsis

**VEITCHEI** “Boston Ivy”—Leaves glossy green, coloring bronze in fall; flowers small; berries deep blue. Each 50c

**QUINQUEFOLIA** “Virginia Creeper”—Common American Ivy. Each 50c

### English Ivy

Large, thick, shining, leathery leaves; evergreen. Each 35c

### Trumpet Vine

**BIGNONIA GRANDIFLORA**—(Trumpet Vine)—Strong climber; deciduous; flowers orange scarlet. Each 50c

**BIGNONIA TWEEDIANA**—Evergreen climbing; flowers canary yellow. Each 50c

### Dutchman's Pipe

**ARISTOLOCHIA SIPHO**—A handsome bright green luxuriant vine, having large foliage and brownish, pipe-shaped flowers. A strong, rapid grower. Strong plants. Each 50c

### Pink Passion Vine

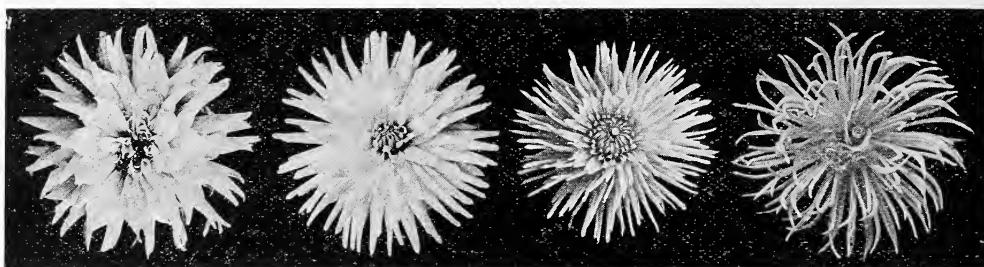
A rapid growing, attractive vine, flowering freely throughout the summer and fall. Plant out in April or May. Each 50c

### Kudzu Vine

Rapid climber with large heavy foliage; purplish flowers in racemes; during late August. Strong roots, 35c; doz \$3.00



# DAHLIAS



**I**N THE SELECTION OF DAHLIAS only those varieties of known merit should be considered. The great Dahlia Specialists of Europe and America have set a high standard, established by their years of comparative trials and you will have greater satisfaction and better values from their tested varieties which we offer, and which have been officially recognized, than you can possibly obtain from untried varieties of doubtful origin.

**O**UR TRIALS ARE VERY EXTENSIVE and are conducted by a practical Dahlia expert of wide experience. All tests are made in the field without irrigation and the Dahlias we list represent the "survival of the fittest," the best of the standard varieties and meritorious novelties of the most famous producers, varieties that are recognized the world over. They are true to name, erect bloomers and good keepers.

**NOTE IT IS IMPORTANT** that your Dahlias be recognized varieties and **true to name**. If not, you cannot hope to exhibit them successfully.

## Culture

**D**AHLIAS will grow to perfection in any good garden soil, preferably one that contains a little sand. Plant as soon as the frost is gone and the ground warm, cutting the tuber to a single strong eye, and placing it on its side at a depth of about 6 inches, in ground that has been previously well cultivated. An excellent way to start Dahlias is to sprout the tubers in a green house and set out the rooted plants. These are generally believed to give more and better flowers, but is more trouble than planting the bulbs. Rows should be four feet apart, plants 18 inches to 3 feet apart in the row, depending on whether planted for a hedge or for specimen plants. Cultivate thoroughly until ready to bloom, then deep tillage must cease and only the surface be lightly stirred, as deep cultivation at this time is fatal to blooming. Tall varieties should be staked.

If you use commercial fertilizer, do not apply until the plant starts growth, then work it into the top soil, 5 or 6 inches from the plant. Bone meal is an excellent fertilizer for Dahlias but must be applied early, as it is slow in action. When the plant is well up, say 6 to 10 inches, pinch off the top, leaving 2 or 3 joints. This will cause it to branch out into a more sturdy, bushy growth. Water freely.

## FINEST CACTUS DAHLIAS

From comparative tests in the field we have selected the following as being the best of their types and color. This list contains many of the newest Dahlias as well as the best of the older ones

**PRICES** 15c DAHLIAS \$1.50 doz.; 20c Dahlias \$2.00 doz.; 25c Dahlias \$2.50 doz.  
35c DAHLIAS \$3.00 doz.; 40c Dahlias \$4.00 doz.; 50c Dahlias \$5.00 doz.

Write for Prices by the Hundred.

### Red and Shades

**AMOS PERRY**—Rich red, very free, good  
Each 35c

**CONQUEST**—Deep wine-crimson, with long twisted petals. Long stems. Each 35c

**CARMINE BLUSH**—Variable from carmine to brilliant red, to delicate pinks with blush suffusions; large and free blooming, long stems. Each 35c

**ELLA**—Deep rose of splendid cactus form. Without a rival in the deep pink shades. Each 35c

**GARIBALDI**—Brilliant rich scarlet, darker toward center with back of petals shading lighter. Long curled and twisted petals. Each 75c

**KALIF**—A giant flower, color a brilliant pure scarlet. The immense blooms are freely borne on long, strong stems and make a wonderful display. Each 75c

**MATCHLESS**—Dark rich crimson. Each 20c

**MRS. A. P. HOWARD**—Fiery red with satiny sheen; vigorous and free blooming. Each 35c

**MRS. FERDINAND JEFFRIES**—Immense deep velvety garnet red flowers. Each 50c

**MINNIE BIRGLE**—Bright, rich, red. Each 35c

**MRS. SUZANNE B. HOLMES**—A superb dark crimson-maroon of finest form. Each 35c

**MARGUERITE**—An intense scarlet, very free bloomer, good stems. Each 30c

**RENE CAYEUX**—Brilliant geranium red. Dwarf compact growth suitable for hedge. Each 25c

**ROSE BEAUTY**—Color is bright rose with deep rose center; full flower. Each 35c

**THE IMP**—The darkest Cactus Dahlia, petals long and incurved claw-like. Each 35c

**UNCLE TOM**—Dark maroon, medium size; quite free. Each 15c



## Cactus-Dahlias (*Continued*)

### Pink and Shades

**COUNTESS OF LONSDALE**—Rich, rosyl-salmon, very floriferous; one of the best. Ea. 25c  
**GONDOLA**—Beautiful shade of pink; with old-gold penciling; lighter at tips. Each 35c  
**GWENDOLINE TUCKER**—A dainty rose color with lighter center, petals incurved. Each 50c  
**KRIEMHILDE**—Blush pink; a prize winner; one of the finest dahlias. Each 20c

### White

**GUNTHER**—Pure white with broad twisted petals on stiff stems. Large, beautiful. Ea. 25c  
**LAWINE**—Fine large white, faint blush tint, erect, free-flowering; extra good. Each 25c  
**KING WHITE**—Dazzling snow-white of magnificent form. Each 35c  
**MRS. WARNAAR**—New Hybrid Cactus, creamy white, tinted delicate pink; one of the best to date. Each 60c

### Lavender

**INDOMITABLE**—Long, narrow petals, perfectly incurved; color rosy mauve. Each 50c

### Variegated and Shaded

**COMET**—Extra large, silvery rose, marked crimson, a very free bloomer. Each 25c  
**CURIOSITY**—Large white flower with claw-shaped petals, penciled rose carmine. Ea. 50c  
**H. L. BROUSSON**—Color is salmon-rose on a pale yellow ground, showing lighter center and tips. Petals twisted and incurved. Each 75c  
**MAD. LOUIS CHARVET**—Straight narrow pointed petals, intermixed red and white. Each 40c  
**RELIABLE**—A blending of yellow, brick-red and salmon; truly a grand flower. Each 25c

## PAEONY FLOWERED DAHLIAS

The rare new shades, brilliant coloring and giant size are not found in any other class of flowers. Peony Dahlias bloom more freely than other dahlias and are very vigorous, growing to a height of 5 to 6 feet.

**ANDREW CARNEGIE**—Salmon-pink, shaded bronze; petals somewhat flat. Each 35c  
**BEAUTY OF CROYDON HALL**—Shades of lilac, salmon and pink. Each 35c  
**DOMINION**—Bright rosy red, shading rose-pink toward edges; ornamental foliage. Ea. 35c  
**ELSA**—Large white, long stems, free and constant bloomer. Each 35c  
**GEISHA**—Bright yellow ground color; heavily marked with clear, bright red, shading toward points of petals into clear yellow; the massive petals are twisted and curled in the most fantastic manner. Each 50c

**GERMANIA**—A rich, dark, velvety wine color, with suffusion of golden-yellow toward the edges of petals. Each 35c

**GIANT EDELWEISS**—A pure glistening velvety white, with brilliant golden yellow center. Each 35c

**HORTULANUS FIET**—Bright salmon rose on old gold and orange, lighter towards tips. A magnificent flower. Each 50c

### Yellow and Shades

**CAPSTAN**—Orange-scarlet and apricot; fine for cut flowers; dwarf-habit. Each 15c  
**COUNTRY GIRL**—Deep yellow-amber shading to salmon-rose tips. Each 35c  
**F. W. FELLOWS**—One of the largest Cactus Dahlias, blooms freely on long stems. Orange with narrow straight petals. Each 50c  
**YELLOW PRINCE**—A grand new yellow of Marechal Neil shade. Flowers extra large. Each 60c

**GENOVEVA**—Pale canary yellow, with a beautiful faint greenish tinge suffusing the entire flower. Well filled incurved petals. Each 25c  
**GOLDEN WAVE**—A magnificent clear deep yellow; petals long and narrow. Each 50c  
**GOLDEN RAY**—Twisted petals, deep bright yellow; long stiff stems. Each 40c  
**IVERNIA**—Bright salmon fawn. Each 35c  
**JOHANNESBERG**—A giant golden yellow of great brilliancy; long stems. Each 50c  
**MODEL**—Clear waxy yellow with a delicate plum blush sheen over tips of petals. Each 50c  
**MRS. WM. E. RUSSE**—A most pleasing yellow with chamois center, the broad twisted petals edged plum shading to old rose. Each 50c  
**NEW YORK**—Color, orange-yellow center shading off to deep bronze-salmon. Each 35c  
**SALMON ROSE**—Petals broad and curled, light salmon rose, with gold center. Each 35c  
**STERN**—Deep pure yellow, very fine. Each 25c  
**WODAN**—Flowers of largest size; color orange-rose shading to old gold center. Each 50c  
**YELLOW KING**—Deep sulphur-yellow. Each 35c

**HORTULANUS WITTE**—A wonderful giant white of great beauty; large stems. Each 50c  
**JAN OLIESLAGERS**—Clear deep yellow. Flowers on long erect stems. Each 50c  
**KING GEORGE**—Rich wine red, large, full flower, conspicuous and attractive. Each 35c  
**MADAM VON BYSTEIN**—A magnificent lilac lavender, changing to light blue. Each 50c  
**MME. BUTTERFLY**—Soft salmon rose, having a rich golden sheen. Each 50c  
**OREGON BEAUTY**—Bright fiery scarlet with golden sheen. Free blooming. Each 35c  
**PHILADELPHIA**—Rich reddish-purple, suffused and marked with white. Each 35c  
**QUEEN EMMA**—A bright pink with darker pink penciling and narrow yellow shading in center of petals. Each 35c  
**ZEPPELIN**—Rich, bright lavender, largest size. well poised on big strong stems. Each 35c  
**SIGNORA**—Vivid scarlet with yellow center, profuse bloomer. Each 35c  
**WALKURE**—Pure yellow free bloomer. Ea. 20c



## Decorative Dahlias

**DELICE**—(Decorative)—Lovely shade of pink, broad petaled flowers. **Each 35c**  
**JEANNE CHARMET**—A beautiful lilac pink; each petal edged with white. **Each 25c**  
**LAVENDER QUEEN**—Clear, soft lavender; petals deeply serrated. **Each 15c**  
**LE GRAND MANITOU**—A white ground splashed and striped with violet red. **Each 35c**  
**MILLE. OCTAVIE GRAINDORGE**—A magnificent pure white, of great beauty of form. **Each 50c**  
**REISEN VON STUTTGART**—A bright blood red; of great size and beauty. **Each 35c**  
**SOUVENIR DE GUSTAVE DOAZON**—Magnificent rich scarlet, often growing 9 inches in diameter; constant bloomer. **Each 25c**  
**MME. A. LUMIERE**—Pure white with violet-red points, good. **Each 25c**  
**JACK ROSE**—Crimson red. **Each 20c**

## Show Dahlias

**A. D. LIVONI**—This grand old variety still remains the best pink of its type. **Each 15c**  
**DREER'S WHITE**—A magnificent white of largest size, great purity, long stems. **Ea. 35c**  
**GRAND DUKE ALEXIS**—A giant glistening, clear white flower, with the daintiest of lavender flakes or markings near center. **Each 25c**  
**JOHN BENNETT**—Yellow, deeply edged scarlet; very free bloomer; desirable color. **Ea. 25c**  
**NORMA**—Pure old gold with delicate plum suffusion that adds to its brilliancy. **Each 25c**  
**THOS. PENDRED**—Soft shade of golden yellow; blooms freely and continuously. **Each 25c**  
**W. W. RAWSON**—Pure white overlaid with amethyst blue. **Each 50c**  
**LILACEA**—(Pom Pom)—Pale blush pink tipped rosy lilac. **Each 20c**

## Single Dahlias

**CRAWLEY STAR**—Clear lilac-pink with crimson base. **Each 25c**  
**GOLDEN CENTURY**—Brightest yellow, long stems. **Each 25c**  
**OWEN THOMAS**—Crimson scarlet, tipped with golden yellow. **Each 25c**

**FINE FLEUR** (Collarette)—Shades of fawn, apricot and yellow. Yellow collarette, very distinct. **Each 35c**  
**TWENTIETH CENTURY**—Pure white at base and tip, center rose-pink. **Each 30c**

## CANNAS

Cannas require a rich, moist soil and should not be planted until all danger of frost is past. They are quick growers and the new flowering sorts bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and the grand new varieties offered are equally valuable for the beauty of their bloom.

**Prices, except where noted: Bulbs or plants in season, each 25c; dozen \$2.50, postpaid.**

**CITY OF PORTLAND**—A magnificent "Test-out" pink with salmon suffusion. Luxuriant green foliage, very vigorous and hardy. **Each 35c; doz \$3.50**

**CORONET**—Large bold flowers of brilliant canary yellow. Free flowering, 3 feet.

**FIREBIRD**—New. Considered the best red-flowered, green-leaved Canna. Flowers are fiery, bright red, borne in immense trusses. Height 4 feet.

**KING HUMBERT**—The mammoth flowers are a brilliant orange-scarlet, with bright red markings, foliage is broad and of a rich coppery bronze with brownish green markings; 5 to 6 feet.

**MAID OF ORLEANS**—Large flowers of rich cream color, shaded and mottled with pink. Bronze markings on the soft olive-green foliage make this variety one of the most attractive among the green-leaved sorts. 4½ feet.

**MRS. ALFRED F. CONARD**—Superb salmon pink flowers of large size, freely produced, very luxuriant green foliage; height about 4 feet.

**YELLOW KING HUMBERT**—Identical with King Humbert in habit of growth. Beautiful yellow flowers dotted with red. Foliage green. Height 5 feet.

**WABASH**—Sometimes called the "Bronze leaved Rosea Gigantea." The immense carmine-pink flowers combined with the deep purple-brown foliage makes this especially attractive. Height 4 feet.

**WINTZER'S COLOSSAL**—Without doubt the largest flowering Canna, the blooms measuring 8 inches across. Flowers are an intense vivid scarlet of the orchid flowering type. Foliage green; 5 to 6 feet.

**WYOMING**—Massive orange colored flowers of orchid shape with bronzy-purple foliage. Height 7 feet.

## Bedding Lantanas

A fine class of summer blooming bedding plants also known as shrubby Verbenas. They vie with the geraniums and cannas in their brilliancy of colors. **Price 15c each—set of 6 sorts 75c**

**CORBEILLE D'ARGENT**—Lovely pure white variety, dwarf and compact.

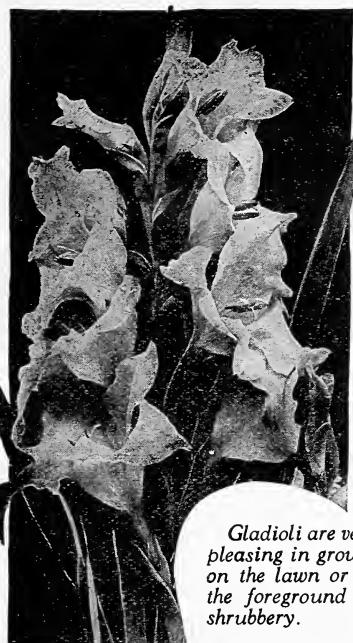
**IOLANDE**—Beautiful umbels of showy flowers in shades of crimson, orange and yellow.

**LEO DEX**—Bronzy-red and crimson-violet, very striking.

**LYRE**—White with clear yellow centers, dwarf.

**RED AND GOLD**—Dwarf grower. Yellow and orange in center, deep crimson towards edge of umbels. This fine variety has been featured strongly at our Rose Festivals.

**WEEPING LANTANA**—Of trailing habit making it also desirable for baskets and boxes. Lavender colored flowers all summer long.



*Gladioli are very pleasing in groups on the lawn or in the foreground of shrubbery.*

**FLORENCE**—A clear, bright lilac, with white blotch on lower petals. A most pleasing and meritorious novelty. **Each 35c—doz \$4.00**

**NORMA DEE CHILDS**—An exquisite white penciled rose—sulphur throat. Large and distinct. **Each 20c—doz \$2.00**

**PINK PERFECTION**—Clear soft pink. The large graceful flowers bloom freely. Most wonderful pink ever introduced. **Ea. 20c—doz \$2.00**

**MEPHISTOPHELES**—A striking combination of red, black and yellow. Should be in every collection. **Each 30c—doz \$3.00**

### Select Named Gladioli

**AMERICA**—Exquisite shade of flesh pink-tinted lavender. **Each 6c—doz 60c—100 \$3.00**

**BARON HULOT**—A brilliant indigo blue, free flowering and very attractive.

**Each 10c—doz 90c**

“**GLORY**”—A delicate cream pink tint with an attractive crimson stripe in the center of each lower petal. From 4 to 8 flowers open at the same time, petals are exquisitely ruffled and fluted. **Each 10c—doz \$1.00**

**GLORY OF HOLLAND**—White with inner throat slightly marked red, sometimes tinged delicate pink. **Each 10c—doz \$1.00**

**GOLDEN KING**—Bright sulphur yellow with an intense crimson patch on the lower petal. One of the best yellows. **Each 15c—doz \$1.50**

**GOLDEN WEST**—A splendid variety of a bright orange color, very showy and brilliant. **Each 10c—doz \$1.00**

**HALLEY**—Salmon pink with creamy white blotch. Large flower and early bloomer. **Each 10c—doz \$1.00**

### Mixed

**DIAMOND MIXTURE**—Select named varieties with choicest Childs Hybrids.

**Each 10c—doz \$1.00—100 \$8.00**

## GLADIOLI

**E**XQUISITE coloring, vigor, ease of cultivation and freedom from insect pests and diseases are making Gladioli universal favorites that should have a place in every garden. They come into bloom at a season when there are few other flowers.

**CULTURE**—*Gladioli may be planted as early as the ground can be worked or as late as June. A sunny situation is preferred. Plant to a depth of 3 to 6 inches, depending on the size of the bulb. Largest bulbs are not always best, as some varieties do not produce large bulbs. Any garden soil will give satisfactory results, but if well enriched, cultivated and freely watered when bulbs first show, Gladioli will amply repay you for this additional care. If cut when the first bud opens and put in water, the flowers will open perfectly, keep for many days, and coloring is richer and more delicate than if left to open on plant.*

### 10 Beautiful New Gladioli

**AUREOUS**—The largest, finest yellow. Deeper yellow center with dark red blotch. **Each 20c—doz \$2.00**

**BLUE JAY**—A true blue of great beauty, lighter in color and a larger, more attractive flower than Baron Hulot. A rare novelty. **Ea. 35c—doz \$4.00**

**EUROPA**—Snow white without trace of color or shading. A grand flower of wonderful form and substance. **Each 20c—doz \$2.00**

**ROUGE TORCH**—A charming French variety. Blush with crimson, velvet throat, free and vigorous. **Each 15c—doz \$1.50**

**ROSELLA**—The lovely large orchid-like flowers are a dainty rose color, with purple and white markings. **Each 15c—doz \$1.50**

**WAR**—A deep rich, velvety crimson self color. Many consider “War” the most striking Gladiolus ever produced. Our stock is extra fine, and every one should plant them. **Each 20c—doz \$2.00**

**MRS. FRANK PENDLETON**—A clear brilliant salmon pink with bright blood-red blotch in throat on lower petal. A superb flower of largest size. **Each 20c—doz \$2.00**

**LILY LEHMAN**—Brilliant light pink shading to blush white. Flowers resemble a lily. One of the best sorts. **Each 10c—doz \$1.00**

**MRS. FRANCIS KING**—Pleasing light scarlet; fine for forcing. **Each 6c—doz 60c—100 \$3.00**

**NIAGARA**—Lovely deep cream, shading to a canary yellow on the two lower inside petals. The giant flowers open freely; has broad, dark green foliage. **Each 15c—doz \$1.50**

**PANAMA**—A new seedling of America, identical except in color, which is much deeper pink. Spike long and the large flowers are well arranged. **Each 15c—doz \$1.25**

**PEACE**—Large flowers of good form; almost pure white; strong grower. **Ea. 15c—doz \$1.50**

**PRINCIPINE**—An intense scarlet, with white throat. **Each 10c—doz \$1.00**

**WILLIE WIGMAN**—Creamy white with red throat, large. **Each 10c—doz \$1.00**

### Gladioli

**GLADIOLI, FINE MIXED**—A large variety of fine flowers unequaled for the price.

**Each 5c—doz 50c—100 \$3.00**



## PERENNIAL BORDER AND BEDDING PLANTS

**W**E offer well-rooted specimens that can be safely packed and promptly delivered in perfect condition. If you contemplate large plantings or special effects, let us know your plans and requirements. We can supply in any quantity for every requirement at lowest prices.

By proper arrangement cut flowers and a grand garden display can be obtained throughout the season. The great advantage in "planting" perennials is their permanency and the fact that they require so little care.

**PLANTS MARKED 20c, \$2.00 doz.; 25c \$2.50 doz., F. O. B. Portland.**

<b>ACHILIEA</b> (The Pearl)—Pure white flowers, 2 ft. high.	<b>Each 20c</b>	<b>CANTERBURY BILLS</b> —Pink, white, blue, large clumps.	<b>Each 20c; doz. \$2.00</b>
<b>ACONITUM</b> (Monkshood or Helmet Flower) — <i>Napellus</i> —Large dark blue flowers, 4 ft. high, invaluable for semi-shady places.	<b>Each 25c</b>	<b>CHELONE</b> —(Shel. Flower) <i>Barbata</i> —Brilliant, rosy color; 2 to 3 ft. high.	<b>Each 20c</b>
<b>ALYSSUM SAXATILE COMPACTUM</b> —Bright yellow corymbs; showy Spring flowering plant—also flowers in Autumn.	<b>Each 20c</b>	<b>COREOPSIS</b> —Golden Sunbeams).—Beautiful golden-yellow; fine for cutting.	<b>Each 20c</b>
<b>ANCHUSIA ITALICA</b> —Tall growing hardy plant, with pretty blue flowers in large racemes.	<b>Each 25c</b>	<b>DAISIES GIANT</b> —Pink and white.	<b>Each 20c</b>
<b>ANEMONE JAPONICA</b> —Beautiful Fall blooming plants. Pink or white.	<b>Each 20c</b>	<b>DIANTHUS</b> —(Hardy Pink).	<b>Each 20c</b>
<b>ANTIRRHINUM</b> —(Snap Dragon)—Pink, Red, White, Orange, Bronze, Yellow Tall and dwarf. Clumps, each 20c; small plants, doz. 60c		<b>DORONICUM</b> —Early Spring Marguerite-like yellow flowers. Fine border plant.	<b>Each 20c</b>
<b>AQUILEGIA HYBRIDA</b> —(Columbine) — An old favorite for Spring and early Summer. Blue, violet, pink. Fine for cut flowers.	<b>Ea. 20c</b>	<b>ECHINOPS</b> —(Globe Thistle) <i>Ritro</i> —Thistle-like plant with globular heads of deep metallic blue flowers, which can be dried. Flowers in August. 2 to 3 ft.	<b>Each 25c</b>
<b>ARABIS</b> — (Rock Cress) — Very early spring flowering plants especially adapted for edging and borders. Pure white flowers.		<b>ENGLISH PRIMROSE</b> — Finest sorts, from pure yellow to deepest crimson-maroon; early, low-growing, fragrant.	<b>Each 20c</b>
<i>Alpina Grandiflora</i> —Single.	<b>Each 20c</b>	<b>FOX GLOVE</b> —( <i>Digitalis</i> ). Tall Gloxinia Flowered. <i>Pink, White and Blue.</i>	<b>Each 20c</b>
<i>Alpina Flore Pleno</i> —	<b>Each 25c</b>	<b>GAILLARDIA</b> —(Blanket Flower.) <i>Grandiflora Maxima</i> .—Combination coloring of yellow, brown, crimson, orange; height, 2 feet; bloom until frost; fine for cut flowers.	<b>Each 20c</b>
<b>ARTICHOKE</b> —Ornamental garden plant, bearing edible buds that develop into giant thistle like blooms	<b>Each 20c; doz. \$2.00</b>	<b>GEUM</b> —( <i>Atrocinium</i> ).—A splendid bed or border plant—18 to 24 inches—bearing freely, dainty little double red flowers.	<b>Each 20c</b>
<b>ASTERS, HARDY</b> —Among the showiest of late flowering plants. The colors are dainty blues, shades of red, pink and white.	<b>Each 20c</b>	<b>GYPSOPHILA</b> —(Baby Breath.) <i>Paniculata</i> .—Single and double; thrives during driest weather; elegant rock plants and very useful for cut flowers.	<b>Each 20c</b>
<b>AUBRETTIA</b> —Pretty dwarf growing rock plants, silvery-green foliage and sheets of flowers in early spring and summer.		<b>HELENIUM</b> —(Sun-bride or Sneeze-wort)— very desirable border plant, broad-spreading heads of flowers, useful for cutting. Red, yellow, brown.	<b>Each 25c</b>
<i>Bougainvillei</i> —Purple.	<b>Each 20c</b>	<b>HELIANTHUS</b> —(Hardy Sunflower)—Effective hardy plants for large borders and planting among shrubbery. Flowers, golden-yellow.	
<i>Leichtlini</i> —Pink.	<b>Each 20c</b>	<i>Multiflorus Maxima</i> —Golden-yellow flowers, July to August.	<b>Each 20c</b>
<b>BOLTONIA</b> —(False Chamomile)—Large, single aster-like flowers. Blooms during the summer and autumn months.		<b>HELIANTHUS SPARSIFOLIA</b> —Superb new single sunflower of striking beauty; blooms late in the season.	<b>Each 25c</b>
<i>Asteroides</i> —Pure white, 6 to 7 ft.	<b>Each 20c</b>		
<i>Latisguama</i> —Pink slightly tinged with lavender, 4 to 6 ft.	<b>Each 20c</b>		



## Hardy Perennial Garden Plants (Continued)

**HELIOPSIS**—(Orange Sunflower)—July and August. Similar to *Helianthus* but earlier. Dwarf habit, fine for cut flowers. **Each 20c**

*Pitcheriana*—Beautiful deep golden yellow flowers about two inches in diameter. **Each 20c**

**HEUCHERA SANGUINEA**—Dainty alpine plant requiring shade of a rockery or fernery. The bell-shaped coral red flowers are borne on wiry stems about 18 inches. **Each 25c**

**HOLLYHOCKS**—Good soil required, work in well rotted manure; water during dry weather.

**New Double and Single**—Red, yellow, pink, and white. **Each 20c; 4 for 75c**

**Large clumps,** **Each 25c; doz. \$2.50**

**MARGUERIETE MRS. F. SANDERS**—(Annual). Valuable for conservatory or window garden in late winter or spring; excellent bedding plant during summer months; color, pure glistening white. **Each 20c; doz. \$2.00**

**MYOSOTIS**—(For-get-me-not)—*Dissitiflora*—Little blue star-like flowers. Useful for borders and half shady places. **Each 15c; doz. \$1.50**

**PENTSTEMON**—(Beard Tongue) *Hybridum*—Large *Gloxinia*-like flowers, in all colors from white to deep crimson, 2 to 3 ft. high. **Each 20c**

**PLATYCODON**—(Balloon flower or Japanese Bell Flower)—2 to 2½ ft. high. After the third season the plant will have ten to twelve stalks covered with lovely blue blossoms for nearly a month, beginning about July first. *Mariesii*. **Each 20c**

**PYRETHRUM**—(Persian Daisy)—Of easy culture in any garden soil where there is good drainage and full exposure to the sun. They prefer to be undisturbed for two or three years, bloom in June—*Hybridum*. **Each 20c**

**RUDBECKIA**—(Golden Glow)—Bears in profusion immense double blooms of the brightest, golden yellow; hardy everywhere. **Each 20c**

**RUDBECKIA NEWMANI**—(Black-eyed Susan). Golden yellow ray petals around a dark center. Fine cut flowers. **Each 20c**

**SANTOLINA**—(Lavender Cotton)—A dwarf evergreen perennial with attractive silver-white foliage, useful as a rock or border plant.

*Chamaecyparisus incana*—Flower heads light yellow. **Each 20c**

**SCABIOSA**—Handsome border plant. *Caucasica* (Blue Bonnet)—A soft shade of lavender, blooms June to Sept. Stems 18 to 24 inches. **Each 25c**

### Larkspur—*Delphinium*

**HARDY LARKSPUR**—One of the most beautiful and useful border plants; vigorous, free-blooming and hardy. The varieties we can supply are among the best.

**Named Varieties—Fine Large 2-year Clumps.** **Ea. 25c; doz. \$2.50. Mixed, ea. 20; doz. \$2.00**

**BELLADONNA GRANDIFLORA**—Clear, delicate turquoise; a strong grower.

**DELPHINIUM FORMOSUM**—Dark blue with white center.

**DUKE OF CONNAUGHT**—Large flower of bright velvety-blue with inner petals of rosylavender, eye nearly black.

**HANS DEKKING**—Very free flowering sort having flowers of a brilliant cornflower blue.

**KING OF DELPHINIUMS**—Giant semi-double flowers, deep blue with white eye.

**SEDUM**—(Stone Crop)—Suitable for rockery carpet bedding, etc.

**Album**—Green foliage and white flowers. **Ea. 20c**

*Lydium glaucum*—Glaucous foliage. **Each 20c**

**SHASTA DAISY**—(Alaska). Immense, fluffy white blooms, with golden eyes, from July until late Fall; fine for cutting; splendid border plants. **Each 20c**

**STATICE**—(See Lavender)—Valuable for border or rockery, with tufts of leathery leaves and immense candelabra-like heads. They last for months when cut and dried. Bloom June to Sept.

*Incana*—White minute flowers. **Each 25c**

*Latifolia*—Minute purplish blue flowers. **Ea. 25c**

**STOKESIA**—(Cornflower Aster) *Cyanoides*—Handsome lavender blue cornflower-like blossoms which measure from 4 to 5 inches across. Desirable as a single plant or grown in beds 18 to 24 inches high, June to Sept. **Each 25c**

**SWEET WILLIAM**—Old favorites for beds and borders. **Each 20c**

**VALERIANA**—(Garden Heliotrope)—Decorative plant for the rockery, with strong heliotrope odor.

*Officinalis*—Rose tinted white flowers during June and July. **Each 20c**

*Coccinea Rubra*—Rose-pink flowers; blooms in May; 2 ft. high. **Each 20c**

*Cocina floralba*—Pure white flower tufts. **Ea. 20c**

**VERONICA PROSTRATA**—Splendid for rock gardens and edges of borders; color deep blue. Blooms May to August. **Each 20c**

**VERONICA REPENS**—(Creeping Speedwell)—Slender compact plant with blue flowers. Thrives in the sun where grass will not grow. Fine for rock work. **Each 20c**

**VIOLA**—Fragrant plants which grow in half shady places and begin to flower early in the spring. Double and single—colors violet, blue or white. **Each 20c**

**WALLFLOWER**—Dark and Light; single and double; mixed; good subjects for rock garden and spring bedding. **Each 20c**

**WATER LILIES**—*Nymphae*—Hardy, white. Single roots 35c each; large roots 75c to \$1.50 postpaid.

**HARDY LARKSPUR**—One of the most beautiful and useful border plants; vigorous, free-blooming and hardy. The varieties we can supply are among the best.

**Named Varieties—Fine Large 2-year Clumps.** **Ea. 25c; doz. \$2.50. Mixed, ea. 20; doz. \$2.00**

**MASTERPIECE**—Lovely deep gentian-blue and plum. Reflexed flowers of immense size. Tall.

**PERFECTION**—Sky-blue petals suffused with rosylilac. Semi-double. Branching habit.

**PRIMROSE**—White sepals, yellow eye, single flowered.

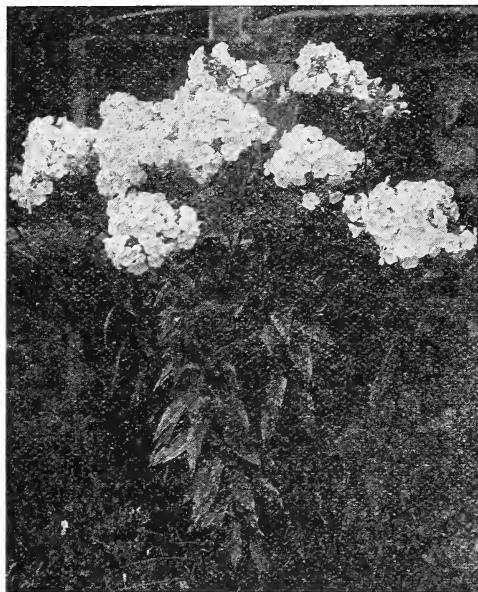
**QUEEN ALEXANDRA**—Sky-blue, white eye, single, very effective and beautiful; 4½ feet.

**TRUE BLUE**—Intense deep blue with black eye. Single flowered tall sort. One of the finest.



## PERENNIAL PHLOX

**H**ARDY everywhere. The marvelous new colors, beautiful foliage and easy culture make this choice flower one of the most desirable for beds, borders or lawn groups where permanent effects are desired.



**ANTONIN MERCIÉ**—Medium; light ground color; upper half of each petal deeply suffused bluish-lilac, large white halo.

**ATHIS**—Tall magnificent salmon pink, free and continuous bloomer.

**COQUELICOT**—Scarlet, with crimson eye.

**DIADEM**—Large flowering, pure white—dwarf.

**EUROPA**—Medium; immense trusses of pure white with distinct crimson eye.

**GOLIATH**—Truly a giant in growth; color bright crimson carmine, deeper eye.

**GEO. A. STROHLEIN**—Medium bright scarlet with crimson red eye; does not bleach.

**HUXLY**—Medium; a beautiful lavender.

**MME. PAUL DUTRIE**—Tall; delicate lilac rose reminding one of beautiful soft pink Orchids.

**MRS. JENKINS**—The best tall early white for massing.

**R. P. STRUTHERS**—Tall, rosy carmine, with claret-red eye; fine.

**SELMA**—Tall; large flower; pale rose mauve with claret eye.

**SUNSHINE**—Dwarf; large, aniline-red with crimson-red eye and light halo.

**VON LASSBURG**—Medium; one of the largest flowered purest whites in cultivation.

### Phlox for Rock Work

**PHLOX SUBULATA**—(Moss or Mt. Pink).—Early spring flowering; useful for carpet bedding; cemetery planting or rockeries.

**PHLOX DIVARICATA CANADENSIS**—Blooms early April, has large, beautiful lavender flowers; grows 10 inches high.

### Sweet Violets

**Single      Price each 15c; 8 sorts, \$1.00, Postpaid.**

**Double.**

**ALASKA**—Enormous flowers of a deep blue-black color and powerful fragrance.

**LADY HUME CAMPBELL**—Beautiful light blue, very free-blooming, exquisitely fragrant.

**MARIE LOUISE**—A constant bloomer, producing large flowers, lovely deep violet purple.

**SWANLEY WHITE**—The finest and best double white violet in cultivation.

### Miscellaneous

### Ornamentals

**BAMBOO**—Ornamental plant, with almost evergreen foliage. We have four varieties, all hardy. Strong clumps, 3 to 6 feet.

Each 75c to \$1.50

**ST. JOHNS WORT (Hypericum Moserianum)**—Low growing with yellow blooms; a drought resister. July and August. Clumps 50c

**TRITOMA (Pfitzeri)—Or Red Hot Poker**—Rich orange-scarlet, blooming from mid-summer to latest fall; spikes 3 to 4 feet high; winters best if lifted and stored in sand. Fine for borders or mass effects.

**Strong flowering roots 25c, doz. \$2.50 postp'd.**

**YUCCA — Spanish Bayonet or Adam's Needle**—Bell-shaped flowers on laterals, forming a perfect pyramid; fine for rockwork. 2 to 3 feet.

**Filamentosa**—Thread leaved, creamy white; July. **Plants, 2 feet, each 75c to \$1.00**

**HYDRANGEA—Hortensis Blue**—Very fine Japanese variety for potting and porch decoration; large flowers, rosy blue to light blue, according to the soil.

Strong clumps, each 75c

**Hortensis, Pink**—Pure pink. Each 75c

**PAMPAS GRASS**—Ornamental grass, easily grown, producing long, pointed leaves and majestic, silvery white plumes; 6 to 8 feet high.

Strong roots, each 60c to 75c

Large specimen plants, \$2.00 to \$5.00



**W**E offer a splendid list of Ferns, including some of the newest varieties as well as the older sorts. Florists wishing stock of the new varieties write for prices.

### Nephrolepis or Boston Ferns

Price small plants, 25c; from 4 in. pots, 60c; 5 in. \$1.25, postpaid.

Specimen plants, \$1.50 to \$3.00 F. O. B. Portland.

**N. AMERPOHLII**—"Lace Fern," beautiful and attractive "sport" from the Boston Fern. Is finely "crested"; has fluffy lace-like appearance.

**BOSTON FERN**—This is the original and well known type of "Sword Fern."

**TEDDY JUNIOR**—New Dwarf Fern. A sport from the famous Roosevelt Fern. Compact in form, and a rapid grower, producing about four times as many fronds as any other fern.

### New and Popular Ferns

**ASPARAGUS SPRENGERII**—(E m e r a l d Feather)—Handsome evergreen trailing plant; its beautiful sprays of lovely green, feathery foliage can be cut freely.

Nice plants, each 20c; large plants, 35c to 50c

**CYRTOMIUM ROCHFORDIANUM**—Foliage of a rich deep glossy green color; and wavy leaflets are deeply cut or toothed; valuable for a dish fern.

Prices: Small plants, 25c; from 4-inch pots, 60c, postpaid.

### SPECIAL—Six Fine Table Ferns for \$1.25

Price 25c each; 6 sorts for 1.25. Extra large plants, 40c each, postpaid.

**ADIANTUM CUNEATUM**—Maiden Hair Fern. A very beautiful and graceful fern.

**ASPIDIUM TAUSSIMENSE**—Valuable for fern dishes; of dwarf graceful habit.

**BOSTON FERN**—See description above.

**N. ROOSEVELT**—Resembles Boston Fern, produces more fronds, making a bushier plant.

**SCOTT FERN**—(*Nephrolepis Scottii*)—Identical with the original Boston type, but is dwarfed with a more compact and bushy habit of growth.

**OSTRICH PLUME FERN**—(*Nephrolepis Whitemani*)—Beautiful new sport from the well known Boston Fern.

### Popular Ferns

**ASPARAGUS PLUMOSUS**—(Climbing Lace Fern)—A finer and more delicate plant than the Sprengerii, but hardy and easily grown. Nice plants, each 20c; large plants, 25c to 30c

**MAIDEN HAIR**—(*Adiantum Cuneatum*)—Very valuable to florists for cutting, grows freely under almost any condition inside.

Good plants from 4-inch pots, \$1.00 postpaid

**FOR FERN DISHES**—Attractive assortments, sufficient for 5 to 6-inch pans.

75c to \$1.00, postpaid

### Japanese Iris (Iris Kaempferi) IRIS

Japanese Iris are unsurpassed for their brilliant and varied colorings, producing effects that are truly marvelous. Blossoms early summer. Plant three inches deep, about 4 inches apart; divide the clumps every two years. Fertilize established beds while dormant, using stable manure, but do not apply after growth starts. **Single and Double Named Varieties.**

Each 20c—doz \$2.00—100 \$15.00

**Mixed, Good Assortment.**

Each 15c—doz \$1.50—100 \$11.00

### English Iris

English Iris is very hardy and has a wide range of colors; they follow the Spanish Iris and are passing when the Japanese begin blooming. Plant 3 to 4 inches apart, in any good soil.

Mixed, Each 6c—doz 60c—100 \$4.00

### Hardy Iris

One of the best of the early hardy Spring flowers. They produce magnificent orchid-like blooms of great size and delightful fragrance.

**CELESTE**—Satiny blue.

**FLORENTINE ALBA**—White.

**PALLIDA DALMATICA**—Extra large, true lavender, fine for massing or as a cut flower.

**MADAME CHERAU**—Large white, dainty frilled blue edge.

**MAORI KING**—Rich deep yellow.

**SPECTABILIS**—Violet purple.

**SHAKESPEARE**—Bronze violet.

**MARS**—Light yellow and cream.

Prices: Each 15c—doz \$1.50—100 \$10.00.

### Iris Siberica

A dainty free blooming Iris producing beautiful dark blue flowers, fine for cut flowers or garden decorations. Clumps, prep'd, ea 25c—doz \$2.00



## PAEONIES Double Herbaceous

THE development and increase in popularity of the Peony has been unparalleled among flowers, and the profusion and duration of bloom, combined with handsome, massive foliage, accommodating habit, and easy culture, render them one of the most popular hardy plants grown for lawn and garden decoration.

Peonies are always free from disease and insects do not bother them. They are hardy, thrifty growers, bloom freely, and nothing will add more to the beauty and attractiveness of the lawn.

Varieties not listed in our choice collection can be supplied to your order.

**ASA GRAY**—Very large. Semi-double. Pale to deep lilac. Mid season. **Each \$1.00**

**avalanche**—Very large and full, milky white. Strong grower, fragrant. Mid season. **Each \$1.00**

**COURONNE D'OR**—Superb white flower; immense size, reflects yellow, center petals, bordered carmine, fragrant, vigorous; late. **Ea. 75c**

**DELACHEI**—Large, full flower of a deep rich crimson, purplish tone; very fragrant; medium to late. **Each 50c**

**DELICATISSIMA**—Light rosy apricot, sometimes margined carmine red. Mid season. **Each 40c**

**EDULIS SUPERBA**—Rose pink, delightfully fragrant. An early bloomer, ready for Decoration Day. **Each 60c**

**FELIX CROUSSE**—Full double, flaming red, good bloomer. Mid season. **Each 75c**

**FESTIVA MAXIMA**—Immense double flowers pure white tipped or flaked with a small crimson spot at center. Early. **Each 50c**

**FRAGRANS**—Late; color deep rose; fragrant prolific bloomer; tall grower. **Each 40c**

**GLOIRE d'BOSKOOP**—Large globular flower of rich pink shading to lilac. Mid season. **Each \$1.00**

**MAD. BREON**—Flowers outside flesh, center lemon, occasionally carmine tipped when first open; entire flower gradually changing to pure white. Early. **Each 60c**

**MAD. DE VERNEVILLE**—Broad outside petals, sulphur white, with center rosy white, sometimes edged carmine, and beautifully imbricated. Early. **Each 60c**

**MONSIEUR JULES ELIE**—Bomb type, pale lilac-rose shading lighter, early. **Ea. \$1.00**

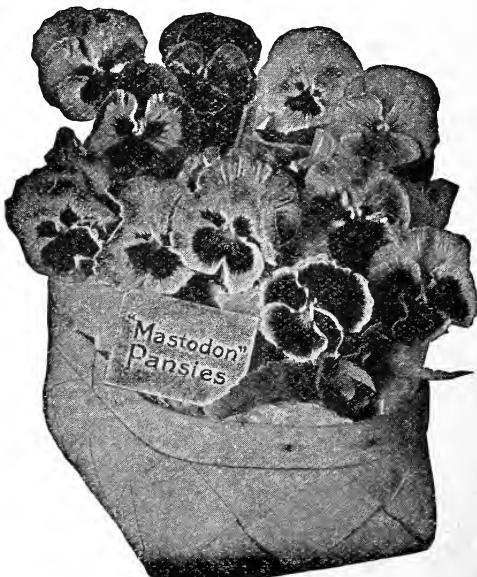
**MODESTE GUERIN**—Medium Bomb type, solferino red, good for cutting. Mid season. **Each 75c**

**OFFICINALIS ROSEA**—Beautiful bright pink globular flowers, blooms with *Officinalis Alba* and *Rubra*, producing fine flowers for Decoration Day. **Each 40c**

**OFFICINALIS RUBRA**—Bright scarlet crimson; double and globular. Early. **Each 40c**

**POTTSI-ROSEA**—Rich deep rose, lighter center. **Each 50c**

**QUEENS PERFECTION**—Creamy white, large, full and attractive. Early. **Each 40c**



### Mastodon Pansies in Bloom

From March until June we offer our famous "Mastodon" Pansy plants in full bloom. Put up one dozen in a basket. Mailing weight 4 lbs. Price, 60c to \$1.00 per basket, not prepaid.

**NEW GIANT PANSIES**—Our Giant Plants can not be compared to any other Giant Pansies. **Each 5c; doz. 50c; by mail 75c doz.**

**MASTODON PANSY SEED**—We offer a limited amount of this hand selected seed, DIAMOND MIXED, and four named varieties. **Per pkt 25c; Large Trade pkt \$1.00**



# Miscellaneous Flowering Plants

The following includes many useful and beautiful plants for Baskets, Porch Boxes, Bedding and House Plants

**ABUTILON ECLIPSE**—Handsome variegated foliage; bright pendant flowers of scarlet and gold colors. Fine for vases and baskets. Ea 15c

**AGERATUM**—*Blue-Star*—Bedding and border plant growing one foot high. Feathery blue flowers all summer. Each 15c; \$1.00 per doz

**CALCEOLARIA**—*Shower of Gold*—Pretty clusters of golden yellow flowers all through the season. Each 15c

**CINNAMON VINE**—A beautiful vine of rapid growth, suitable for porches, trellises, etc. Large roots 15c each—2 for 25c

**COLEUS**—Fancy Leaved—Coleus are the most important of all the fancy leaved bedding plants. They also make very fine pot plants, especially if you have a warm room to Winter them in. Each 15c—6 fine sorts 75c

**PERSIAN CYCLAMEN, Giant Flowered**—Cyclamen have circular fleshy leaves of rich metallic green variously marked with silvery stripes. The flowers appear at the approach of cool weather and continue blooming throughout the winter. Colors, red, pink, and white. 25c each—larger plants 50c each postpaid

**COMMON IVY**—Waxy green leaves, strong growing vine for window and porch boxes or for hanging baskets. Each 15c

**GENISTA RACEMOSA**—*Shower of Gold*—Its pendant-shaped flowers literally smother the plant during the spring months, while at other times its graceful dark green foliage makes a very ornamental plant. Easily grown.

Each 25c—add 10c if postpaid

**GERANIUM ROSE SCENTED**—Cultivated for its sweetly scented leaves. Each 15c

**MESEMBRYANTHEMUM SPECTABILIS**—Quilled shaped, succulent leaves with large single thistle-like cerise pink flowers. Fine for baskets, vases or porch boxes. Each 15c

**PETUNIA, Irvington Beauty**—Single-flowered.

A very popular bedding and window-box plant. Covered all season with beautiful light pink flowers veined green and shaded to white in the throat.

Each 15c—4 for 50c

**PRIMROSES, New Giant Obconica**—The crisp green leaves spring up luxuriantly amid which appear, all season, stout little stalks, each surmounted by a pretty cluster of lavender-pink flowers several inches across. One of the finest winter blooming house plants for a cool room. Price 20c each—larger plants 25c and 35c each—add 10c if postpaid.

**PRIMROSES, Chinese Fringed**—Are easily grown in a cool room, delighting in a light sandy soil. Flowers are fringed, produced in trusses well above the fresh lively green foliage which of itself is very handsome. Colors red, pink, white. Price 20c each—larger plants 25c and 35c each—add 10c if postpaid.

**SALVIA**—*New Zurich*—A distinct and attractive variety of compact dwarf growth, of neatly rounded form, closely set with stiffly erect spikes of bright scarlet flowers.

Each 15c—per dozen \$1.25

**SMILAX**—For using as a green with cut flowers. Fine as a parlor or window plant. Each 15c

**UMBRELLA PLANT**—*Cyperus*—*Alternifolia*—A splendid house plant of easy culture; resembles a palm; remains green throughout the year. Keep well watered. Each 20c to \$1.00

**VINCA VARIEGATA**—Leaves are a glossy green, broadly margined a creamy white. The best of trailing plants for window boxes.

Each 15c—2 for 25c

**VERBENA**—*New Mammoth*—The Verbena is, next to the Geranium, the most popular of all bedding plants. Ass'd colors. Ea 10c—doz 75c

**WANDERING JEW**—*Tradescantia*—White and Red Variegated. Each 15c

## Six Beautiful Flowering Begonias

Price 15c each—set of 6 sorts 75c postpaid

**ARGENTEA GUTTATA**—Handsome erect growing sort, with pointed wine-colored leaves with silvery white spots; clusters of pure white flowers on the tips of the stems.

**BERTHA CHATEROCHER**—Glossy green foliage covered nearly the year round with clusters of bright scarlet flowers.

**COMPTA**—Pointed purplish-green leaves with silvery shadings. Pure white flowers.

**FOLIOSA**—The freest-flowering Begonia we have. Makes a handsome window plant, with its glossy green leaves and bright pink flowers.

**NITIDA ALBA**—Waxy dark green ovate leaves and graceful pure white flowers.

**PRESIDENT CARNOT**—Very large green leaves with purplish cast on reverse sides. Large pendant clusters of light scarlet flowers.

### REX BEGONIA

Grown for the beauty of their foliage. The leaves are large, variegated and margined with a peculiar silver-metallic gloss.

Price choice plants each 25c

## Popular Annual Bedding Plants

During the months of April and May we have thousands of the following bedding plants. Price per dozen—add postage if wanted by mail.

Alyssum.....	\$0.50	English Daisies..	\$0.50	Lobelia.....	\$0.50	Phlox.....	\$0.50
Asters.....	.50	Forget-Me-Not..	1.00	Marigold.....	.50	Salvia .....	.70
Carnations.....	1.00	Geraniums, 75c to 2.00		Mignonette.....	.50	Stocks.....	.50
Cosmos.....	.50	Heliotrope.....	.75	Petunia.....	.75	Verbena.....	.50

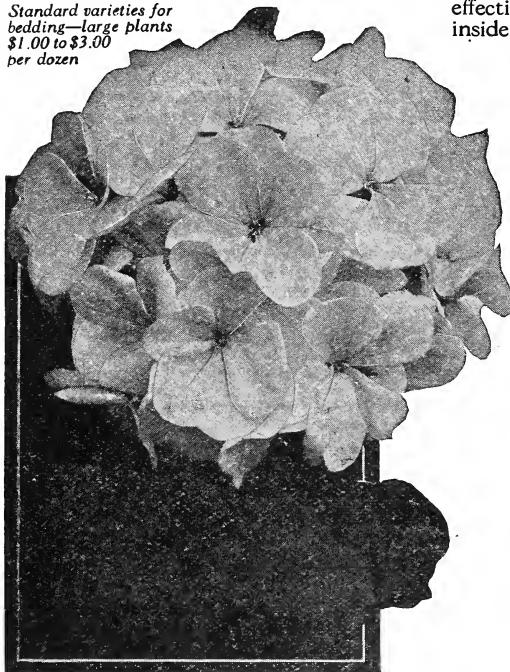


# GERANIUMS

**G**ERANIUMS are undoubtedly the most popular bedding plant of the time. Their free rapid growth and continuous blooming qualities keep them in the front rank among the long list of bedding plants. Beds of one color or variety have been very popular of late years, being very

effective in all garden efforts, and for Winter flowers inside nothing is more satisfactory. They are of the easiest culture, requiring to be kept cool and given plenty of air, with an occasional sprinkling of the foliage to clean and freshen it. Keep the roots moist, not too wet, and have good drainage in the pots. No other flower can take their place as a bed or border plant, and inside they grow beautifully throughout the year, making cheery house plants.

*Standard varieties for  
bedding—large plants  
\$1.00 to \$3.00  
per dozen*



**ROMILDA VICINI**—White ground overlaid with light rosy-salmon with a reticulated effect. Upper petals feathered with crimson. Novel colorings.

**ROSAMIE**—Large trusses of fine flowers; delicate rose-color reverse of florets clear violet, the whole maculated with white. An excellent new sort.

**PIERRE VIERGE**—Light salmon shaded and reticulated with white. One of the freest blooming sorts we have seen.

## Rare Novelties — Single Geraniuns

Price 20c each—set of 8 sorts \$1.25

**FREDERICK PLESSIS**—Large trusses of well rounded florets. Color light scarlet shaded to large, white center, very striking.

**JEAN LIONETT**—Grand trusses on stout heavy flower stalks. Color reddish purple, each floret maculated with orange in the center. Very distinct and beautiful.

**LUCILE HILL**—Long upright stems; large trusses of beautiful ruffled form; perfectly circular florets of largest size; rich salmon shaded with rose, an excellent grower.

**MARQUIS DE LONQUEIL**—Rich geranium red shaded to light carmine with very large white center. Large trusses on fine strong stems.

**MME. REYNARD**—Profuse bearer of fine trusses of bloom; rosy-amaranth, upper petals shaded flame scarlet, distinct white eye. A grand new sort.

## Twelve Fine Single Geraniums

Price 15c each—set of 12 sorts \$1.25

**ALBION**—Beautiful free flowering white variety as pure as driven snow. Always in bloom.

**C. W. WARD**—Rich salmon shaded to orange. magnificent zoned foliage.

**EUGENE SUE**—Odd shade of russet orange, very distinct.

**JACQUERIE**—Rich, vivid crimson, immense trusses.

**MAXINE KAVOLENSKI**—Odd shade of orange red; very distinctive, splendid bedder, vigorous, handsome; a dependable sort.

**MADAME CHAPOTAN**—Delicate light pink flowers in very large trusses; handsomely zoned foliage.

**MADAME MOSNAY**—Peculiar shade of carmine-lake, shaded to violet and white. Very distinct and striking.

**METEOR**—Brilliant crimson maroon. A magnificent bedding variety.

**MILDRED RIVAL**—Pure rose pink, with conspicuous white blotch on two upper petals.

**MRS. A. BLANC**—Silvery salmon shaded to peach; one of the richest colored sorts.

**MRS. E. G. HILL**—Very large trusses of single florets; color clear salmon, with a white center.

**NUIT POITEVINE**—Trusses and florets of grand size; rich, rosy violet; the upper petals feathered with scarlet at their base. Very distinct and much admired.



## Rare Novelties—Double Geraniums

Price 20c each—set of 8 sorts \$1.25

**BARON DE MONTAL**—Color rich rosy-magenta shaded fiery red at base of upper petals. Fine healthy, growing sort of great beauty.

**BLANCAFLEUR**—Fine new double white with flowers of wonderful purity of color. Sturdy growing and free blooming.

**EUGENE CARRIER**—Enormous semi-double florets of rich copper color shaded salmon-rose. Robust growth, trusses immense in size.

**ERNEST CHEBROUX**—Very large trusses of rich bright cerise colored flowers, each floret with large distinct white eye.

## Twelve Fine Double Geraniums

Price 15c each—set of 12 sorts \$1.25

**ABBIE SCHAEFER**—Beautifully formed florets in fine large trusses, rich scarlet crimson of velvety texture.

**ALPHONSE RICARD**—Immense trusses of large round flowers of the most vivid scarlet.

**BEAUTE POITEVINE**—Very large, semi-double flowers of a brilliant salmon color. One of our best sorts.

**EDMOND BLANC**—Large trusses of rich purplish violet flowers borne in greatest freedom. One of the finest dark colored sorts.

**JEAN VIAND**—Soft rose color, shaded to white. Magnificent bedder.

**MADAME CHARLOTTE**—Rosy salmon shaded and reticulated with white.

## Ivy Leaved or Trailing Geraniums

These are unexcelled as basket or window-box plants, as well as being useful in bedding, covering the ground quickly with their deep green, ivy-shaped leaves and brilliant colored flowers.

Price 15c each—set of 6 sorts 75c

**BALLADE**—Large double flowers of a tender lilac color, feathered with crimson.

**GARDEN GLORY**—Brilliant scarlet, upper petals veined crimson; rich and attractive.

**CHARLES TURNER**—Brilliant pink, approaching scarlet. Upper petals nicely feathered maroon. Large trusses. Best of all ivy geraniums.

## Pelargoniums—Lady Washington Geraniums

Price 25c each—set of 6 sorts \$1.25

**BRIDEGROOM**—Silvery rose veined crimson, with dark purplish maroon blotches on upper petals. A wonderful bloomer.

**COUNTESS OF OXFORD**—Bright scarlet richly mottled and veined with crimson. Prominent maroon blotches on upper petals.

**DUCHESS OF PORTLAND**—Large round flowers vinous cerise shaded to vermillion. Upper petals darkly blotched and veined.

**ELECTRE**—Rich deep cerise shaded vinous rose, upper petals dashed with white at their base. Dwarf, compact growing and charming for bedding.

**LOUIS MAZIEUX**—Brilliant vermillion scarlet with prominent white markings at base of petals; very distinct.

**PIERRE COURTOIS**—Velvety purple spotted with light violet. A rare color among Geraniums.

**VIRGINIA**—Delicate daybreak-pink shaded painted-rose with large white center. Large trusses on strong stalks. Very beautiful.

## Twelve Fine Double Geraniums

Price 15c each—set of 12 sorts \$1.25

**MADAME LANDRY**—Distinct salmon pink. Lightly shaded scarlet. Magnificent trusses.

**MARQUISE DE CASTELLANE**—Rich solfermocarmine of great brilliancy. Immense trusses, robust grower, free bloomer.

**MME. RECAMIER**—Snow white; strong, vigorous grower; flowers abundantly produced in large trusses.

**MRS. GLADSTONE**—Pure white flushed and bordered with rose-pink. A most beautiful variety.

**MRS. LAWRENCE**—Beautiful satiny pink shaded to white; a gem among geraniums.

**S. A. NUTT**—The best of the rich, dark crimson varieties; trusses massive.

## Ivy Leaved or Trailing Geraniums

These are unexcelled as basket or window-box plants, as well as being useful in bedding, covering the ground quickly with their deep green, ivy-shaped leaves and brilliant colored flowers.

Price 15c each—set of 6 sorts 75c

**COLONEL BADEN POWELL**—The nearest approach to a pure white variety in this class of geraniums. Fine large trusses.

**INCOMPARABLE**—Exquisite shade of rosycarmine, sturdy growing and free blooming.

**MRS. HAWLEY**—Soft rose-pink of silvery appearance. A beautiful variety.

## Pelargoniums—Lady Washington Geraniums

Price 25c each—set of 6 sorts \$1.25

**EASTER GREETING**—Remarkable for its free blooming proclivities, equally as fine bedder as a pot plant. The flowers are of a fiery amaranth red, each petal distinctly blotched maroon. A novelty of the greatest merit.

**FAIR MAID**—Lower petals white flushed light pink; upper petals blackish maroon surrounded with crimson and bordered white.

**MADAME VIBERT**—Flowers bright red blotched with black and maroon and edged with pink and white.

## New Heliotropes

Price 15c each—set of 4, 50c postpaid

**ALBATROSS**—Elegant dwarf, bushy growing new variety of great merit; large panicles of pure white flowers in great profusion all season; the best white variety to date.

**HEAVENLY BLUE**—Large, close panicles of exquisite light blue flowers, with a white eye. Grows vigorously and flowers abundantly.



## Choice Novelties in Carnations

CARNATIONS will thrive in any good fresh garden soil. After danger of frost is over, set 10 to 12 inches apart each way, cultivate and water as needed until they begin blooming, then mulch with light manure that has straw in it; plants should be staked or strung to support them. Carnations are easily grown in the house for Winter flowers.

*American Carnation  
Culture* Lamborn  
\$2.00 Postpaid



Price 20c each—Set of 7 sorts \$1.00

**ALICE COOMBES**—A beautiful new ever-blooming carnation of robust erect growth. Silvery rose-pink in color so greatly admired in this class of plants.

**BELLE WASHBURN**—Very large bright scarlet flowers finely fringed and very fragrant. Free blooming sturdy branching grower. Believed to be the finest scarlet sort yet produced.

**GOOD CHEER**—Large, handsome, well built flowers of a rich shade of deep pink, tinted with carmine. Remarkably free in bloom for such a large flowered sort.

**MATCHLESS**—A wonderful new white variety produced by a famous hybridizer of New York State. Large massive flowers on strong upright stems. Sweetly perfumed.

**PRINCESS DAGMAR**—A grand new ever-blooming carnation, producing very large flowers of a rich crimson maroon color. Its rich, velvety color is immensely popular.

**PINK SENSATION**—Very large, heavily fringed flowers with exquisite fragrance. Color pure rose-pink with silvery shadings. Rank growing variety with long straight stems and leathery blue-green foliage. A superb new American seedling.

**YELLOWSTONE**—Vigorous growing, free flowering new variety producing flowers of a dainty canary yellow lightly splashed and mottled with pink. A gem among fancy carnations.

### Standard Everblooming Carnations

Price 15c each—4 for 50c—set of 12 fine varieties \$1.25 postpaid

**ALICE**—Large nicely fringed, well formed flowers on stout stems. Color light pink with silver shadings. One of the best sorts we have.

**BEACON**—A bright, deep scarlet; a most perfect color, soft yet brilliant; the flower is of the largest size and perfectly double; fringed; sweet.

**BONORA**—A beauty; fancy variety of fine size and form, borne on long, stout stems. Color white flaked and splashed with red.

**ELDORADO**—Deep golden yellow, splashed and striped with red; a very rich combination of colors and a novelty of much merit.

**ENCHANTRESS**—Flowers very large, borne on long stems. The color is a superb shade of flesh pink. An early and continuous bloomer.

**HERALD**—Flowers very large and massive with finely fringed petals and strong calyx. Stems long and very stout; color bright rich scarlet.

**LADY BOUNTIFUL**—Pearly white flowers, produced on strong wiry stems. Nicely fringed and very fragrant.

**MRS. ACKHURST**—Bright salmon pink flowers of the largest size, most perfect form and nicely fringed. Very fragrant.

**MRS. C.W. WARD**—Simply superb, both in form and color; brilliant dark pink, of immense size.

**PHILADELPHIA**—Greatly admired for its beautiful soft rose pink flowers. Very delicate and pretty.

**POCAHONTAS**—Rich crimson-maroon flowers of fine size and build. Rarely beautiful variety.

**WHITE ENCHANTRESS**—A pure white sport from the famous variety Enchantress, having the same general habit and characteristics.

**VICTORY**—Intense scarlet of great brilliancy. Strong stout stems, holding the flower upright.

### Free Blooming Fuchsias

Price 15c each—set of 6 sorts 65c

**ELSA**—Sepals rose-pink, corolla rosy purple. A fine large bloom.

**JUPITER**—This is a grand mammoth double flowered Fuchsia; flowers of enormous size, very large, rich purple violet corolla; tube and sepals bright crimson.

**MOLESWORTH**—Fine, large and elegant form, sepals long and reflexed, pure red; corolla large double white.

**SPECIOSA**—A winter blooming variety producing very long narrow flowers, tube and sepals blush-pink, corolla bright carmine.

**STORM KING**—Superb double white variety well known to all plant lovers.

**TRAILING QUEEN**—Tube and sepals rosscarlet, corolla violet purple. Of trailing habit of growth, fine for baskets and window boxes.



## Twelve Finest Exhibition Chrysanthemums

Price 10c each—set of 12 sorts \$1.00 postpaid

**CHRYSOLORA**—In our field trials during the past season this variety stood out pre-eminently as the finest yellow in the collection. Large, incurved flowers of elegant form.

**CHARLES RASER**—Elegant, snow-white, incurved blooms of fine size and build. Comes on long, stout stems grandly clothed with luxuriant foliage. One of the finest new sorts.

**CLEMENTINE TOUSSET**—Creamy white, delicately laced with lilac and lavender; petals beautifully twisted and arranged. Fine large flower.

**GOLDEN EAGLE**—Rich, golden yellow, immense size, very double; a grand well-built flower, with splendid stem and foliage. A sure prize-winner.

**GREYSTONE**—Large reflexed broad petaled blooms of reddish bronze; reverse of petals light buff. One of the most distinct and beautiful.

**DR. ENGHARD**—Flowers delicate pearl-pink; large, beautifully incurved; very double and of exquisite form.

**MAJOR BONNAFFON**—Soft, clear yellow, full in the center, eight inches in diameter and nearly as deep; perfect form.

**CHIEFTAIN**—Color a beautiful shade of Enchantress, or flesh pink. Perfectly incurved flowers of remarkable waxy appearance. Sturdy grower with handsome, leathery foliage. A fine thing.

**L'AFRICANE**—Very large rich crimson flowers; one of the finest dark colored sorts.



**MRS. H. W. BUCKBEE**—Fine incurved blooms of ivory white color; very double and lasting. Free blooming and very hardy.

**MARIGOLD**—Heavy broad incurved petals forming a very large globe shaped bloom of glistening texture. Color golden yellow tinged with bronze. Rank grower, very large foliage.

**ROMAN GOLD**—In this fine variety we have secured a sort which for richness of color excels all other yellow varieties to date. Comes shaded with bronze in cool weather.

## Rare New Japanese Chrysanthemums

Price 15c each—set of 12 sorts \$1.25

**D. B. CRANE**—Bold incurved flowers of wonderful substance. Color golden yellow distinctly splashed with red. Very distinct and novel coloring.

**EARLY FROST**—Large pure white flowers of perfect incurved form and fullness. Flowers very early and remarkably free.

**GOLDEN QUEEN**—Deep golden yellow blooms of fine size and build. Petals nicely incurving and full to the center.

**HARVARD**—Rich velvety crimson of reflexed form, produced with great freedom. The darkest colored variety to date.

**MANKATO**—Of sturdy upright growth producing stout stemmed flowers of fine size. Color amaranth red shaded to purplish rose. Petals reflexing and interlacing in beautiful manner. Very distinct.

**MRS. B. E. HAYWARD**—Rich bright pink shaded to silvery pink. Of improved incurved form and very dwarf habit requiring little staking.

**ODESSA**—The greatest exhibition yellow yet produced. Flowers of immense size, filled with a myriad of incurving petals, requiring a long season to mature.

**OCONTA**—Rank in growth, free in bloom, flowering in early October this fine white variety is going to become very popular.

**PINK GEM**—Crisp, broad incurved petals forming a perfectly round bloom of waxy finish. Color delicate silvery pink. Splendid foliage and habit of growth.

**TEKONSHA**—Very large loosely incurving blooms of a rich golden bronze color. A most beautiful shade of color. Fine healthy dwarf habits of growth.

**WHITE CHIEFTAIN**—A sport from the variety Chieftain having all the characteristics of that fine sort except that the flowers are pure white. Dwarf sturdy habit, long fringe-like petals of the most perfect form.

**WILLIAM TURNER**—Immense incurved flowers of snowy whiteness. The largest variety in existence fine for exhibition.

## Parrots' Feathers

Produces long trailing sprays of lovely green, finely cut foliage set in symmetrical whorls; plant in a water tight vase or hanging basket, keeping water standing over the soil surface.

Good roots, each 25c; doz. \$2.50



# STRAWBERRY PLANTS



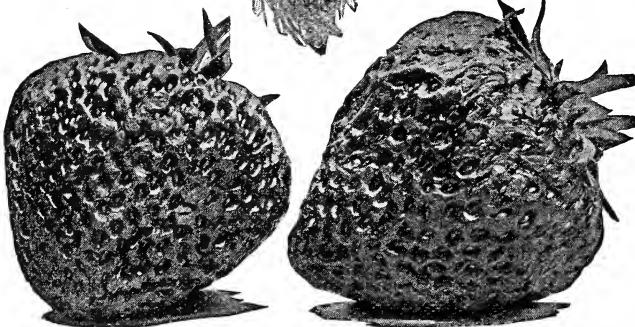
**J**AMOND Quality Strawberry Plants are large, vigorous and healthy. They are heavily rooted and have large, full crowns; have been carefully grown, and are free from disease and pests. We dig as ordered and pack for shipment in ventilated crates of 500 plants each. They are grown from our select strains and are always true to name; no substitution is ever allowed without instructions from the purchaser.

Our select strains of New Oregon, Gold Dollar, Marshall, Magoon, Clark's Seedling and other Western varieties, many of which were introduced by ourselves, still hold their position as the leading commercial varieties of the Northwest, and are being planted more extensively each season. Thus demonstrating by actual market and growing tests the great superiority of our Western varieties, against the keenest competition from all sections.

Big  
Healthy  
Well  
Grown  
Plants

Trim Roots  
here when

ready to  
set out



up in size and quality throughout the season, which in some localities extends until frost.

## Care For and Feed Your Plants

Neglect is the prime factor in strawberry failures, and most strawberry beds suffer from lack of attention and starvation. Proper fertilization and intelligent culture insure enormous crops of finest fruit and freedom from diseases and pests. White grubs, cutworms, crown miners, etc., can all be controlled by preventive measures. Never set strawberries in or near clover sod or hay fields. Such ground should have at least two years cultivation before using for strawberries. Remove the mulch directly after fruiting.

## NEW OREGON

*Our Own Introduction*

### Best, Most Uniform and Heaviest Yielding Main Crop Strawberry

"**NEW OREGON**" is large, firm and of fine form, averaging 15 to the quart box, color a brilliant, deep, rich red, having a glossy varnished appearance when fully ripe. This dark blood red coloring extends through to the very center, and, no matter how large, "**NEW OREGON**" is never hollow. When fully ripe the distinctive flavor is suggestive of the wild berry, is crisp and delicious, and will remain on the vine for three days without injury, keeping perfectly for many days after picking; stands handling and long shipments and will hold its color, shape and flavor when canned.

"**NEW OREGON**" is an early and continuous bearer, being ready for marketing the first half of May in the Willamette Valley and holds in the localities extends until frost.

The strawberries here offered have all stood the market test and you will be safe in selecting any one of them that will suit your conditions and requirements. They are the best varieties obtainable.



# STANDARD VARIETIES OF STRAWBERRIES

**GOLD DOLLAR**—*Extra Early*—Gold Dollar berries are large size, dark red all through, and have fine flavor. Foliage heavy, large and spreading, which protects the blooms from early frosts.

**MARSHALL**—Very large; dark crimson throughout; fine flavor; a fine market and table berry. Our stock is true, vigorous and prolific.

**PRICES:** All varieties except Fall Bearing Prepaid { 1 doz., 30c Not { 100, \$1.00  
{ 100, \$1.25 Prepaid { 1000, \$7.00

Not less than 500 plants of a kind at 1000 rate. Special prices on 3000 or more.

## FALL OR EVERBEARING STRAWBERRIES

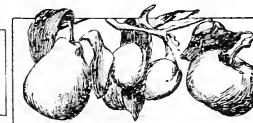
The new varieties of Fall bearing Strawberries, also known as "Everbearing," are very satisfactory for home gardens and under some conditions will prove profitable commercially, but require special care and attention to secure best results as the late fruit will be small and yield less if the first blossoms are not removed, and the plants are allowed to fruit early and continuously. When properly grown they are of splendid quality and yield heavily until frost.

**PROGRESSIVE**—Rich, red color, firm and of delicious flavor. Good keepers and shippers. Cut blossoms 4 weeks before the berries are wanted. We consider this the best of its class.

Per doz. 50c; 25 plants 75c; 100, \$2.00 postpaid; by frt. or exp. \$1.75 per 100; \$15.00 per 1000



## FRUIT TREES AND BERRY PLANTS



Our Nursery Catalog contains a complete list with full description and illustrations of Fruit, Shade and Ornamental Trees, Shrubs, Climbers, etc. A copy will be mailed to anyone interested, We give below a condensed price list. We can supply all reliable and standard sorts.

APPLES Each Per 10	PEARS Each Per 10	PRUNES Each Per 10	
2 years.....\$0.35	\$2.50	2 years.....\$0.35	\$2.75
1 yr., 4 to 6 ft.... .25	2.00	1 yr., 4 to 6 ft.... .40	3.50
<b>APRICOTS</b>		<b>PEACHES</b>	
1 yr., 4 to 6 ft....\$0.35	\$3.00	1 yr., 4 to 6 ft....\$0.35	\$3.00
1 yr., 3 to 4 ft.... .25	2.25	1 yr., 3 to 4 ft.... .25	2.25
<b>CHERRIES</b>		<b>PLUMS</b>	
2 years.....\$0.60	\$5.00	2 years.....\$0.50	\$4.00
1 yr., 4 to 6 ft.... .50	4.00	1 yr., 4 to 6 ft.... .35	3.00

## Burbank's Phenomenal

Larger and sweeter than the logan and a brighter crimson raspberry color. July 1st.

2-year, postpaid, 20c each; \$1.75 per doz.; not prepaid, \$1.50 per doz., \$10.00 per 100.

## Loganberry

The loganberry is generally larger than the blackberry, often an inch and a quarter long; color dark red and produced in immense clusters. It partakes of the flavor of both the blackberry and raspberry. Fruit ripens early; excellent for jelly or jam. June.

Large, well rooted plants; Prices: Two-year-old 20c each; \$1.75 per doz., prepaid; by express or frt., \$1.50 per doz.; \$10.00 per 100.

## Raspberries

Prices except where noted; Not prepaid, 2 years—Ea. 15c; per 10, \$1.00; per 100, \$8.00

### RED CAPS

**Cuthbert**—Deep rich red, large and firm; one of the best market berries. Ripens medium to late.

**Marlboro**—Standard, light crimson, large, very firm; good commercial variety; ripens early.

### BLACK CAPS

**Gregg**—Of good size, fine quality; very productive and hardy. Takes same position among black caps as Cuthbert among the red sorts.

**Plum Farmer**—Large black, hardy and productive. One of the very best.

**Cumberland**—Very large; similar to Gregg.



## Blackberries

**Evergreen**—An Oregon introduction; berries long, black, sweet, rich, delicious; July to Nov.

10 for \$1.00; 100 for \$8.00

Postpaid, each, 15c; 10, \$1.25

**Himalaya Giant**—Strong grower of a trailing nature; everbearing; an enormous yielder.

Postpaid, each 15c; doz. \$1.50

Frt. or Exp., doz. \$1.25; 100 \$8.00

**Lawton**—Fruit large; very productive; Oregon's most popular kind. Each 10c; 10, 60c; 100, \$5.00; postpaid, each 15c; 10, 75c.

**New Mammoth**—Rampant grower of trailing habit. Enormously productive; July 1.

Two-year-old, ea. 15c; doz., postpaid \$1.50; by express or freight, doz. \$1.25; 100 \$8.00.

**Kittatinny**—Large, glossy black, juicy, sweet; excellent, when fully ripe. July. Each 10c; 10, 60c; 100, \$5.00. Postpaid, ea. 15c; 10, 75c

**Eldorado**—Large, jet black, melting, sweet and rich; hardy and productive. Ea. 10c; 10, 90c; 100, \$7.00; postpaid, each 15c; 10, \$1.25

## Gooseberries

Prices except where noted: each 15c; per 10, \$1.25; per 100, \$10.00.

**Dowling**—Large, light green; soft, juicy and good. Vigorous and very productive.

**Industry**—Very large, dark red, of delicious flavor; best English variety. Bushes strong, upright and very productive. Ea. 25c; 10, \$2.00

**Oregon Champion**—Berries very large, pale green; sweet, fine; bush strong, prolific bearer.

**Red Jacket (Josselyn)**—Large, smooth, prolific and hardy; best quality. Ea. 15c; 10, \$1.25

## Currants

Currants are a profitable easily grown crop, and the market is always good.

Prices, each 15c; 10, \$1.25; 100, \$10.00.

**Perfection**—New; largest and most prolific Currant; bright red, rich flavor, mild sub-acid.

**Black Naples**—Very large, black, rich, tender.

**Cherry**—Very large; deep red; fine for preserving; valuable market variety.

**Fay's Prolific**—Bright red, very sweet.

**Victoria**—Large, bright red bunches; late.

**White Transparent**—The best white currant

## VEGETABLE PLANTS

Special prices on large orders. No plants sent C. O. D.

### CABBAGE

Transplanted and "pulled" plants in all standard varieties. Early and late at seasonable times.

Postpaid Not Prep'd

**Prices** Doz. 100 100 1000

Transplanted.... \$0.20 \$1.05 \$0.90 \$7.00

Not transplanted.... .15 .75 .60 4.50

### KALE

When you order Kale be sure to state whether you want the Garden Kale or the "Cow" Kale.

**Prices** Postpaid Not Prep'd

Doz. 100 100 1000

Thousand Head or "Cow" Kale.... \$0.15 \$0.75 \$0.60 \$4.50

Garden or Curley Kale.25 1.05 .90 7.00

### BROCCOLI

"St. Valentine" is the best variety; plants can be set after June and are ready to use in March.

**Prices** Postpaid Not Prep'd

Doz. 100 100 1000

Broccoli..... \$0.30 \$1.15 \$1.00 \$9.00

### SWEET POTATO PLANTS

Sweet potatoes can be successfully grown in most sections. The plants should be set out after the ground is warm. Rich sandy bottom land is best but any good garden soil will give good returns.

**Prices** Postpaid Not Prepaid

Doz. 100 Doz. 100 1000

For seasonable delivery... \$0.35 \$1.50 \$0.25 \$1.25 \$10.00

### CAULIFLOWER

Prices Postpaid Not Prep'd

Doz. 100 1000

Early Varieties, transplanted \$0.30 \$1.00 \$9.00

Not transplanted..... .90 7.00

Late kinds, transplanted... } Write for prices

Late kinds, not transplanted } Add 15c per hundred if ordered by mail.

### CELERY

Fine healthy plants in early and winter varieties furnished in season or grown to order.

**To succeed with celery keep the plants growing constantly while young—if they "stand still"—they are liable to run up to seed later**

**Prices** Postpaid Not Prep'd

Doz. 100 100 1000

Transplanted.... \$0.30 \$1.25 \$1.00 \$8.50

Not transplanted..... Write for prices

### TOMATOES

Tomato plants should not be set out before the weather is settled and ground warm; unless they are protected from frost.

**Prices** Postpaid Not Prep'd

Doz. 100 100 1000

Transplanted.... \$0.30 \$1.25 \$1.00 \$8.50

Not Transplanted—Write for Prices.

### BRUSSELS SPROUTS

These are very hardy and should be grown the same as Kale or Broccoli.

**Prices** Postpaid Not Prep'd

Doz. 100 100 1000

Brussels Sprouts.... \$0.25 \$1.15 \$0.90 \$7.00

ABOVE PRICES ARE SUBJECT TO CROP CONDITIONS.

## Flavoring and Medicinal Herbs—Plants

**CHIVES.**

Each 15c; doz. \$1.50

**LAVENDER.**

Each 25c; doz. \$2.50

**ROSEMARY.**

Each 25c; doz. \$2.50

**PEPPERMINT.**

Each 25c; doz. \$2.50

**SWEET MARJORAM.** Each 20c; doz. \$2.00

**SAGE (Giant).** The Giant Sage is a greatly improved variety. Each 15c; doz. \$1.50

**THYME.** Each 25c; doz. \$2.50



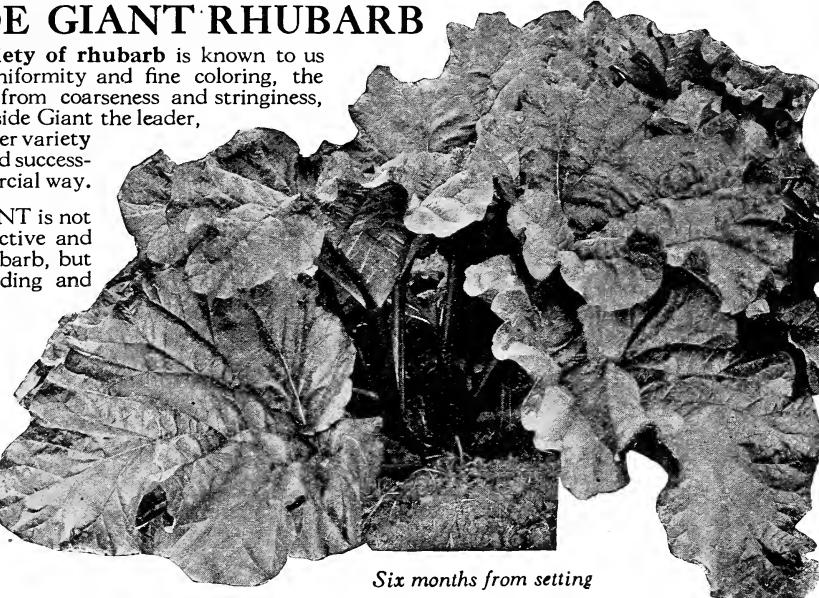
## RIVERSIDE GIANT RHUBARB

**N**O OTHER variety of rhubarb is known to us that has the uniformity and fine coloring, the flavor, the freedom from coarseness and stringiness, that has made Riverside Giant the leader, and we know of no other variety that has been produced successfully in a large commercial way.

RIVERSIDE GIANT is not only the most productive and profitable hardy rhubarb, but is also the best yielding and finest in quality when forced of all forcing varieties.

Full instructions and information on forcing will be sent on request.

Four men in 6 hours have cut over 5 tons from less than one-half acre on the fourth cutting.



Six months from setting

RIVERSIDE GIANT is unequalled for yield and quality, being crisp, tender, free from stringiness, with a good color and a delicious, distinctive flavor. The skin is so thin that it disappears in cooking. Riverside Giant has every good quality of a commercial rhubarb and is so vigorous and productive that over thirty-five tons per acre is a conservative estimate for the season. Cuttings begin in March and usually four are made, the last one in July. Full information for preparation of the soil and growing the crop, as practiced by the originator, will be sent on request to all purchasers.

Two cars of Riverside Giant Rhubarb shipped to The Dalles for drying, proved to be the best variety for that purpose, containing more substance and not having a tough skin.

We have the exclusive sale of this wonderful rhubarb and offer root divisions from the original stock. Each root will make a thrifty plant if properly cared for.

Root divisions must be made from young healthy stock, cuttings from old roots will give poor returns.

**PRICE**—each 15c; doz. \$1.50; \$10.00 per 100. Postpaid each 20c; doz. \$1.75. Special prices on large lots.

### Victoria Mammoth Rhubarb

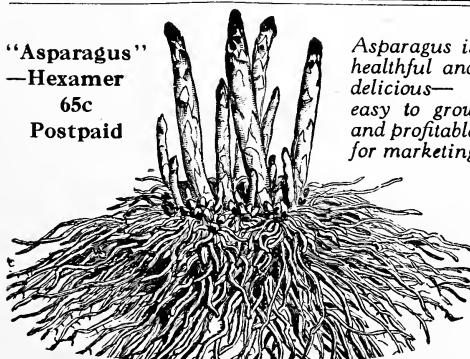
Standard Hardy Variety.

**TWO-YEAR-OLD ROOTS**—Postpaid, 15c each; \$1.25 per dozen. By express or freight, \$1.00 per dozen; \$6.00 per 100.

Write for prices on larger lots.

Don't plant rhubarb along a fence, near trees or other crops. Give it plenty of room. Write for cultural directions.

"Asparagus"  
—Hexamer  
65c  
Postpaid



Asparagus is healthful and delicious—easy to grow and profitable for marketing

### Wagner's Giant

A larger, heavier yielding variety than the Crimson Winter. Our stock is locally grown from root divisions only and will be found true and uniform. Does not run up as many seed stalks as the Crimson Winter and in our experience has proven better in every way.

**Price, not prepaid:** Root divisions, each 15c; \$1.50 doz.; \$10.00 per hundred. Postpaid each 20c; doz. \$1.75.

### Asparagus Roots

**ONE-YEAR-OLD PLANTS**—Postpaid 25c doz.—75c per 50—\$1.00 per 100—by express or freight 20c dozen—50c per 50—75c per 100—\$6.00 per 1000.

**TWO-YEAR-OLD PLANTS**—Postpaid 40c dozen—\$1.00 per 50—\$1.50 per 100—by express or freight 25c dozen—75c per 50—\$1.00 per 100—\$8.00 per 1000.

### Horse Radish

Postpaid 5c each—35c per dozen—by express or freight 25c dozen—\$1.50 per 100. Write for price by the 1000.



# DIAMOND FERTILIZERS

*The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound Is Good Fertilizer*

**DIAMOND QUALITY FERTILIZERS** are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation. Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food.

**SPECIAL FERTILIZER BOOKLET** giving complete details and prices of the different fertilizers which we can supply, together with full information for their application, will be sent on request. This booklet is instructive, reliable and of great value to all interested in fertilizers.

## NITROGEN

**Nitrogen** is necessary for the production of plant life, and without it there can be no plant growth; it is a powerful stimulant, and, when present in excess, causes a rapid and excessive, but watery and unnatural growth, which is made at the expense of fruitfulness. Too much nitrogen on wheat shows its ill-effects in such a rank growth of the plant, and later, of straw, as to be unable to sustain its own weight until the grain is matured; on corn by heavy stalk and leaf growth and late maturity ears; on fruit trees by a rapid and sappy growth which produces little fruit.

**Leguminous crops** (such as clover, beans, peas, etc.), draw their supply of nitrogen principally from the air, and, therefore, an artificial application of nitrogen fertilizer to this class of plants is rarely needed.

## PHOSPHORIC ACID

**Phosphorus** in the form of phosphoric acid is necessary for the healthy growth of plants, and is essential to the best production of straw and seed. Its deficiency in a soil is shown by the want of vigor in its plant life. To produce its full effect, however, it must be used on a soil already rich in nitrogen, or to be associated with nitrogen in the fertilizer; otherwise it will produce a tall, pale and spindling growth of straw with very small increase of grain or fruit. It has a marked effect in hastening maturity and should be used freely on all crops which should be ripened early and is especially useful for increasing all crops of seed grain.

**Acid Phosphate** contains lime, which is valuable on such soils as would be improved by the use of land plaster, and if prepared from bone also contains nitrogen, which gives it an additional value.

## POTASH

**Potash** is found in greater or less quantity in all soils. It is essential to the development and growth of the plant. In combination with Nitrogen and Phosphoric Acid, Potash contributes to the full and perfect development of plants. Excess of Potash does not show any special effect on the plant, but a weakened growth, a lack of fruitfulness, and especially a slow and unsatisfactory development of starch and woody fiber, follows its deficiency in the soil.

## LIME

**Lime** is not a direct fertilizer but improves the condition of swampy and peaty soils, which consists largely of organic matter and are consequently rich in nitrogen, but this nitrogen is unavailable, owing to the slow decay of the organic matter in some of these soils, so lime furnishes the conditions necessary for a more rapid decay. Such soils sometimes need phosphoric acid and potash as well as lime.

**Lime** also performs a valuable office in the sweetening of soils. When a soil betrays excess of acid, lime is needed. It also makes heavy clays light and more porous, and renders the plant food in them, as well as in muck soil more available. Quick-lime, marl and ground oyster shells are the more common sources of lime. To produce the results above noted lime from stone or oyster shells is more effective.

**A 100-pound Bag of High Grade Commercial Fertilizer** will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and there are no weed seeds to worry over. Always remember that the commercial value depends upon the available or soluble contents of a mixed fertilizer, and the price is governed thereby. The figures giving the soluble, insoluble, totals, etc., unless understood, are often misleading, apparently giving a greater percentage of the various elements than are actually available.

Applied in quantities of 1,000 lbs. to a ton per acre, our fertilizers, with intelligent culture will sustain and gradually improve the soil and increase the yield and quality of the product, even though the crop be entirely removed and no other manuring done. The roots, vines, stubble and whatever of weeds or waste there is, all assist in providing the necessary humus. A greater amount is often used to advantage by market gardeners. Complete instructions will be found in our Fertilizer Booklet, sent free. If there is any special information you require, write us; your inquiries will have our prompt and careful attention and our experience may help you.

Being the largest dealers, we carry the most complete stock of fertilizers and fertilizing materials in the Northwest, and having installed modern machinery for regrinding and mixing our "Diamond Quality" Fertilizers, we can make immediate delivery in any quantity, ground to a fineness and blended to a mechanical perfection that make them of superior excellence. Fertilizers that are machine mixed and fined are more thoroughly and evenly blended, are more readily available and give uniformly better results than when mixed by hand.

**Note** AS FERTILIZERS ARE SOLD ON A SMALL MARGIN, PRICES ARE SUBJECT TO MARKET CHANGES, but you will always get FULL VALUE for your money



## Diamond Fertilizers (Continued)

### GENERAL AND VEGETABLE FERTILIZER

An all-round fertilizer, which can be used on any crop, but is especially adapted for grain and general farm crops. Analysis: Nitrogen, 2.50 per cent; phosphoric acid, 9.20 per cent.

**10 lbs 50c—100 lbs \$3.50—per ton \$68.00**

### FRUIT AND ONION FERTILIZER

This fertilizer is also used for blackberries, raspberries, strawberries, etc. Analysis: Nitrogen, 1.50 per cent; phosphoric acid, 9.00 per cent; potash, 1.00 per cent.

**10 lbs 50c—100 lbs \$3.60—ton \$70.00**

### ODORLESS LAWN AND ROSE FERTILIZER

Our Diamond Lawn Fertilizer promotes a vigorous, healthy growth, giving the desired dark rich green appearance; can be used at the time the seed is planted and later as a top dressing. Use one hundred pounds for a city lot. Contains no weed seeds. More effective and less objectionable than stable manure. When used as a top dressing make several light applications about two weeks apart. Analysis: Nitrogen, 3.50 per cent; phosphoric acid, 8.00 per cent.

**10 lbs 50c—25 lbs \$1.00—50-lb sack \$1.95—  
100 lbs \$3.60—ton \$69.00.**

### LIME

**Lime Rock—Fine Ground.** This is the form of lime recommended by the Agricultural Department. Use  $\frac{1}{2}$  to 1 ton per acre.

**100 lbs \$1.25—ton \$15.00**

### SUPERPHOSPHATE

This is a concentrated form of phosphoric acid, and it is actually the cheapest form in which to buy phosphoric acid. Our present stock contains 17 to 18 per cent available phosphoric acid.

**Per lb 5c—100 lbs \$1.75—ton \$33.00**

### FISH GUANO

Fish cooked, dried and ground is a strong fertilizer, rich in nitrogen, carrying considerable phosphorus and used largely by vegetable growers. We do not recommend this for lawns or city use, as odor is objectionable.

**100 lbs., \$5.00; ton, \$95.00**

## DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated

A complete, highly concentrated, powerful fertilizer, clean and odorless, wonderfully invigorating to all plants; producing luxuriant foliage and larger and more brilliant flowers. A 40c package will feed a dozen large plants a whole year. Special instructions on each package.

**Price  $\frac{1}{2}$  lb pkg 25c—by mail 35c—1 lb pkg 40c—by mail 50c**

Our fertilizers contain generous supplies of vital plant food. Being highly concentrated and readily available, small quantities only are needed for the production of the finest crops. THEY ARE QUICK IN ACTION, RELIABLE AND ECONOMICAL.

### LAND PLASTER, OR GYPSUM

Made from pure gypsum, free from clay or other foreign matter. This is especially valuable for clover crops.

**Apex 10 lbs 25c—100-lb sack \$1.25—ton \$15.00**

### BONE MEAL

Fine ground Bone Meal is one of the best fertilizers. Reduced by improved machinery to an even fineness—nothing is added. This is a very valuable enricher of the soil, and one of the most economical at present prices. Analysis: Nitrogen 4.00 per cent; phosphoric acid, 2.0 per cent. **5 lbs 30c—10 lbs 50c—100 lbs \$3.25—ton \$63.00.**

### TANKAGE

Ground meat scraps and bone, dessicated in a vacuum, is very rich in phosphoric acid and nitrogen. Analysis: Phosphoric acid 7.00 per cent; nitrogen 5.75 per cent. **Per 100-lb sack \$3.25—ton \$63.00.**

### NITRATE OF SODA

For immediate results Nitrate of Soda is the very best for stimulating and forcing the growth of plants or any other crop. Analysis: Nitrogen, 15 per cent. **1 lb 10c—100 lbs \$6.25—ton \$120.00**

### MANURE ASHES—A Potash Fertilizer

Manure Ashes contain 2.50 to 4.00 per cent available potash. This is a splendid value in a potash fertilizer at this time.

**Price 100 lbs \$1.85—ton \$35.00**

### SHEEP GUANO

The best natural manure, dried and ground. Concentrated, soluble; quick in action, and free from weed seed. Splendid for vegetables; fine for roses and flowers. Excellent for lawns. Analysis: Nitrogen, 1.25 per cent; phosphoric acid 4.05 per cent.

**10 lbs 50c—25 lbs 75c—50 lbs \$1.25—100 lbs \$2.10—ton \$40.00.**

### BLOOD MEAL

Blood cooked, dried and finely ground, a quick acting fertilizer; analyzing very rich in effective nitrogen; in fact, the nitrogen of Dried Blood is one of the most effective forms of organic nitrogen known. This also carries some phosphorus; is a strong fertilizer, a little going a long way.

**5 lbs., 50c; 10 lbs., 85c; 100 lb. sack, \$6.35**

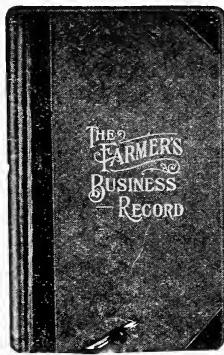




# BOOKS

*Books are the inspiration, the authoritative guide, that enable you to command success, and you should have the standard references on the subjects in which you are interested.*

## FARMERS' BUSINESS RECORD



A simple complete system of business accounting in one book. Only the figures need be recorded.

This wonderful book will hold your records for twenty years; also contains a fund of priceless information, valuable tables, weights and measures, formulas for stock remedies and foods, forms for contracts and business and legal agreements.

*Place yourself and farm on a business basis.*

**PRICE:** The regular price of this valuable book is \$3.75. By special arrangement, we are able to introduce it to our customers for **\$2.50; \$2.75 postpaid.**

*Note: C indicates cloth; P, paper cover.  
All books postpaid at following prices:*

	<i>Binding Price</i>
<b>Agriculture, Principles of, through the school and home gardens,</b> Stebbin.....	C \$1.25
<b>Alfalfa, The Book of,</b> Coburn, 324 pages, 6x9 in.....	C 2.10
<b>Alfalfa, Practical Information on,</b> Coburn, 161 pages, 5x7½ in.....	C .70
<b>Alfalfa Farming in America,</b> Wing, 480 pages, 5x8 in.....	C 2.10
<b>Apple Culture, Field Notes on,</b> Bailey, 88 pages, 5x7½ in.....	C .85
<b>Apple Orchard, The American,</b> Waugh, 214 pages, 5x7½ in.....	C 1.30
<b>Asparagus,</b> Hexamer, 166 pages, 5x7½ in.....	C .70
<b>Basket Making with Raffia,</b> Morse, 30 pages, 5x7 in.....	P .25
<b>Belgian Hare Guide</b> .....	P .25
<b>Blackberry and Raspberry Culture,</b> Littooy, 48 pages, 3½x6 in., new edition.....	P .40
<b>Bulbs and Tuberous-Rooted Plants,</b> Allen, 312 pages, 5x7 in.....	C 1.60
<b>Bush Fruits,</b> Card, 537 pages, 5x7½ in.....	C 1.60
<b>Cabbages and Cauliflowers, Broccoli, Etc.,</b> Gregory, 93 pages, 5x7½ in.....	P .40
<b>Cabbages and Cauliflower, Etc.,</b> Allen, 125 pages, 5x7 in.....	C .65
<b>Carnation Culture, American,</b> Lamborn, 175 pages, 5x8½ in.....	C 2.00
<b>Celery Culture,</b> Beattie, 143 pages, 5x7½ in.....	C .70
<b>Clovers and How to Grow Them,</b> Shaw, 349 pages, 5x7½ in.....	C 1.35
<b>Corn Crops, The, A Discussion of Maize, Kaffirs and Sorghums,</b> Montgomery, 347 pages, 5x7½ in.....	C 1.90
<b>Cranberry Culture,</b> White, 131 pages, 5x7½ in.....	C 1.10
<b>Daffodils-Narcissus,</b> Kirby, 235 pages, 5x7½ in.....	C \$1.35
<b>Draining for Profit and Health,</b> Waring, 252 pages, 5x7½ in.....	C 1.10
<b>Farm Appliances,</b> Martin, 192 pages, 5x7 in.....	C .70
<b>Farm Book, New American,</b> Allen, 540 pages, 5x7½ in.....	C 2.10
<b>Farmstead, The,</b> Roberts, 350 pages, 5x7½ in.....	C 1.60
<b>Farm Conveniences,</b> 256 pages, 5x7½ in.....	C 1.10
<b>Farm Gardening and Seed Growing,</b> Brill, 166 pages, 5x7½ in.....	C 1.10
<b>Farm Grasses of the United States,</b> Spillman, 248 pages, 5x7½ in.....	C 1.35
<b>Fertilizers,</b> Gregory, 137 pages, 5½x7½ in.....	P .55
<b>Fertilizers,</b> Voorhees, 335 pages, 5x8 in.....	C 1.65
<b>First Book of Farming, The,</b> Goodrich, 259 pages, 5x7½ in.....	C 1.10
<b>First Principles of Soil Fertility,</b> Vivian, 265 pages, 5x7½ in.....	C 1.10
<b>Floriculture, Practical,</b> Henderson, 325 pages, 5x7½ in.....	C 1.60
<b>Flower Garden, The,</b> Ida D. Bennett, 282 pages, 5x7½ in.....	C 1.35
<b>Forestry, Practical,</b> Fuller, 299 pages	C 1.60
<b>Fruit Garden,</b> Barry's, 516 pages, 5x7½ in.....	C 1.60
<b>Fruit Grower, The Practical,</b> Maynard, 128 pages, 5x7 in.....	C .70
<b>Fruit Growing, The Principles of,</b> Bailey, 516 pages, 5x7½ in., new edition.....	C 1.85
<b>Fruit Harvesting, Storing, Marketing,</b> Waugh, 224 pages, 5x7½ in.....	C 1.35
<b>Fungi and Fungicides,</b> Weed, 228 pages, 5x7½ in.....	C 1.10
<b>Gardening for Pleasure,</b> Henderson, 404 pages, 5x7½ in.....	C 1.60
<b>Gardening for Profit,</b> Henderson, 376 pages, 5x7½ in.....	C 1.60
<b>Gardening for Young and Old,</b> Harris, 101 pages, 5x7½ in.....	C 1.10
<b>Garden Making,</b> Bailey, 417 pp., 5x7½ in.....	C 1.70
<b>Grape Culturist, The,</b> Fuller, 282 pages, 5x7½ in.....	C 1.60
<b>Grasses and How to Grow Them,</b> Shaw, 453 pages, 5x7½ in.....	C 1.60
<b>Grasses and Forage Plants,</b> Flint, 398 pages, 5½x8 in.....	C 2.10
<b>Greenhouse Construction,</b> Taft, 210 pages, 5x7½ in.....	C 1.75
<b>Greenhouse Management,</b> Taft, 382 pages, 5x7½ in.....	C 1.75
<b>Hedges, Windbreaks, Etc.,</b> Powell, 140 pages, 5x7½ in.....	C .70
<b>Homes for Home Builders,</b> King, 251 pages, 5x7½ in.....	C 1.10
<b>How to Choose a Farm,</b> Hunt, 412 pages, 5½x7½ in.....	C 1.85
<b>How to Plan the Home Grounds,</b> Parsons, 249 pages, 5x8 in.....	C 1.10
<b>Injurious Insects of the Farm and Garden,</b> Treat, 296 pages, 5x7½ in....	C 1.00



## New Books (*Continued*)

Note: C indicates cloth; P, paper cover. All books postpaid at following prices:

	Binding Price	Binding Price
<b>Insects Injurious to Fruits</b> , Saunders,		
436 pages, 5x8 in.....C	\$2.10	
<b>Land Draining</b> , Miles, 109 pp., 5x7½ in.C	1.10	
<b>Landscape Beautiful, The</b> , Waugh, 336 pages, 6x8½ in.....C	2.10	
<b>Landscape Gardening</b> , Maynard, 338 pages, 5x7½ in.....C	1.60	
<b>Landscape Gardening</b> , Waugh, 152 pages, 5x7½ in., new edition.....C	.85	
<b>Lawns and How to Make Them</b> , Bar- ron, 174 pages, 5x7½ in.....C	1.30	
<b>Manure, The Bonner Method of Mak- ing</b> , 86 pages, 6x9 in.....P	.30	
<b>Market Gardening and Farm Notes</b> , Landreth, 215 pages, 5x7½ in.....C	1.10	
<b>Money in the Garden</b> , Quinn, 268 pages, 5x7½ in.....C	1.10	
<b>Mushroom Culture and Pure Cul- ture Spawn</b> , 33 pages, 5x8 in.....P	.35	
<b>Mushrooms, How to Grow Them</b> , Falconer, 169 pages, 5x7½ in.....C	1.10	
<b>Nursery Book, The</b> , Bailey, 365 pages, 5x7½ in.....C	1.60	
<b>Nut Culturist, The</b> , Fuller, 289 pages, 5x7½ in.....C	1.60	
<b>Onions</b> , Jordan, 95 pages, 5x8 in.....C	.55	
<b>Onion Book, The, Prize Essays and Other Papers</b> , 36 pages, 7x10 in....P	.30	
<b>Onion Culture, New</b> , Greiner, 115 pages 5x7½ in.....C	.65	
<b>Peach Culture</b> , Fulton, 204 pp., 5x7½ C	1.10	
<b>Play and Profit in My Garden</b> , Roe, 349 pages, 5x7½ in.....C	\$1.10	
<b>Potato Culture, A B C of</b> , Terry, 318 pages, 4½x6 in., new edition.....P		.55
<b>Potato, The</b> , Frazer, 185 pages, 5x7½ in.C		.85
<b>Rose, The Book of the</b> , Foster-Mellair, 356 pages, 5x7½ in.....C		2.00
<b>Roses and How to Grow Them</b> , 189 pages, 5x7½ in.....C		1.35
<b>Roses and Rose Growing</b> , Kingsley, 163 pages, 6x9 in.....C		2.10
<b>Small Fruit Culturist</b> , Fuller, 298 pages 5x7½ in.....C		1.10
<b>Strawberry Culture, The A B C of</b> , Terry & Root, 235 pages, 5x6 in....P		.55
<b>Strawberry Culturist, The Illustrated</b> , Fuller, 59 pages, 5x7 in.....C		.35
<b>Sweet Potato Culture</b> , Fitz, 86 pages, 5x7½ in.....C		.65
<b>Tomato Culture</b> , Littooy, 24 pages, 5x7¾ in.....P		.25
<b>Tomato Culture</b> , Tracy, 150 pages, 5x7½ in.....C		.65
<b>Vegetable Gardening</b> , Green, 252 pages, 5x7½ in.....C		1.25
<b>Violet Culture, Commercial</b> , Gallo- way, 230 pages, 5x7 in.....C		1.55
<b>Violets, How to Make Money Grow- ing</b> , Salford, 45 pages, 6x6½ in....P		.35
<b>Water Lilies and How to Grow Them</b> , Conard & Hus, 228 pages, 5x7½ in....C		1.35

## POULTRY AND PIGEON BOOKS

Note. C, indicates cloth; P, paper cover.

	Binding Price	Binding Price
<b>American Standard of Perfection</b> , 331 pages, 5½x8 in.....C	\$2.00	
<b>Artificial Incubating and Brooding</b> , 96 pages, 9x11½ in.....P	.50	
<b>Asiatics, The</b> , 96 pages, 9x11½ in....P	.50	
<b>Bantam Fowl, The</b> , McGrew, 68 pages, 9x11½ in.....P	.50	
<b>The Call of the Hen, The</b> , Walter Hogan, 138 pages.....C	2.00	
<b>Chick Book, The</b> , 80 pages, 9x11½ in.P	.50	
<b>Duck Culture</b> , Rankin, new edition...P	.75	
<b>Ducks and Geese</b> , 104 pages, 9x11½ in.P	.75	
<b>Egg Farm, The New</b> , Stoddard, 332 pages, 5x7½ in.....C	1.35	
<b>Eggs and Egg Farms</b> , 96 pages, 9x11½ in.....P	.50	
<b>Egg Record and Account Book</b> ....P	.25	
<b>Five Hundred Questions and An- swers</b> , Darrow, 48 pages, 6x9 in....P	.25	
<b>Incubating and Brooding, Artificial</b> , 96 pages, 9x11½.....P	.50	
<b>Leghorns, The, All Varieties</b> , new edi- tion, 9x11½ in.....P	1.00	
<b>Money in Broilers and Squabs</b> , Boyer, 148 pages, 6x9 in.....P		\$.50
<b>Orpington, The</b> .....P		.75
<b>Plymouth Rocks, All Varieties</b> , new edition.....P		1.00
<b>Poultry Craft</b> , Robinson, 271 pages, 6x9½ in.....C		1.50
<b>Poultry Houses and Fixtures</b> , new edi- tion.....P		.75
<b>Poultry Remedies, Reliable</b> , 93 pages, 5½x8½ in.....P		.25
<b>Rhode Island Reds</b> .....P		.75
<b>Successful Poultry Keeping</b> , 176 pages, 9x11¼ in.....F		1.00
<b>Two Hundred Eggs a Year Per Hen And How to Get Them</b> , Warren, 96 pages, 6x9 in.....P		.55
<b>Turkeys, All Varieties</b> , 80 pages, 9x11½ in.....P		.75
<b>Wyandottes, All Varieties</b> , new edi- tion.....P		1.00
<b>Pigeon Book. The Feather's Practi- cal</b> , Long, 168 pages, 5x7½ in....P		.50

## BEE

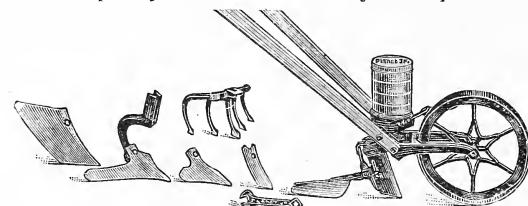
<b>New Edition A B C and X Y Z of Bee Culture</b> , 750 pages 7½x9½ in., post- paid.....C	\$2.65	
By freight or express deduct 15¢ from above prices.		
<b>Advanced Bee Culture</b> , Hutchinson, 205 pages, 6x9½ in.....C	1.10	
<b>How to Produce Extracted Honey</b> , Root, 29 pages, 4x6 in.....P		\$.20
<b>Modern Queen Rearing</b> , Root, 33 pages, 4x6 in.....P		.20
<b>A Thousand Answers to Bee-Keeping Questions</b> , Miller, 276 pages, 5½x8 in.....C		1.25



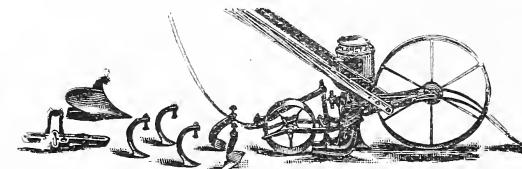
# Planet Jr. Garden Tools

FOR over 40 years Planet Jr. Garden Tools have stood the test of world-wide usage, and are recognized in every known country as the highest type of garden implement. In Europe, where labor is cheapest, Planet Jrs. are in constant use. How, then, can you afford to be without them where labor is both high and scarce? We cannot tell you all about Planet Jrs. in this catalog, but will send you the beautiful 72-page Planet Jr. book on request.

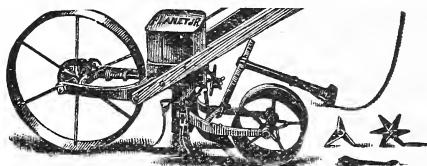
Being general selling agents for Planet Jr. Implements, our stocks are large and orders will have prompt attention. State your requirements. We will advise the correct tool.



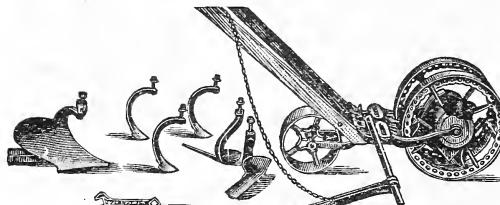
No. 31 Combination Drill, Seeder and Wheel Hoe



No. 6—Combined Planet Jr.



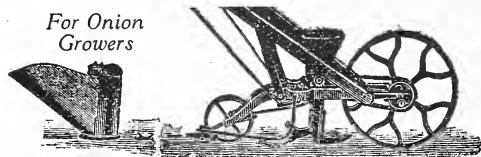
No. 3—Hill and Drill Seeder.



No. 1—Planet Jr.

## IRON KING SEED DRILL

For Onion Growers



A well-made, durable and easy running machine, accurate and reliable, and with careful use will last a lifetime. It will save the price of the machine in sowing a few acres. If you are growing onions you cannot afford to be without one. Sows anything from turnips to peas. Weight packed 58 lbs. Price \$12.50.

## NO. 31 PLANET JR.

### New Combined Drill Seeder and Wheel Hoe

For the home garden this new Planet Jr. is the ideal tool—a combined seeder and wheel hoe at a price that anyone can afford. The seeder will plant any amount, even a small packet accurately and evenly—any kind of garden seed—from a  $\frac{1}{4}$ -inch to 2 inches deep. The change to a wheel hoe is quickly and easily made—for equipment see illustration. Seeder holds 1 qt. Weight packed 32 lbs. Price \$13.75

## NO. 6 PLANET JR.

### Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

It drops all garden seeds in hills and sows in drills, with the greatest regularity, to any depth, covers, rolls down and marks the next row. As a wheel hoe, it hoes, cultivates and plows at every passage up to 16 inches in width. Holds over 2 quarts of seed. Price Complete \$26.75. Weight packed 63 lbs. As Seeder only \$23.25. As a Wheel Hoe only (No. 36) \$12.00

## NO. 3 PLANET JR.—Hill and Drill Seeder

A favorite among onion growers, market gardeners and seedmen. The special force feed is admirable, working equally well whether sowing with an ounce or a full hopper. 15 inch Steel Driving Wheel. Holds 3 quarts of seed. Weight packed 43 lbs. Price \$19.25

## NO. 1 PLANET JR.

### Combined Drill Seeder, Wheel Hoe, Cultivator and Plow

The sowing cylinder is a drum of spring brass set between the driving wheels, with a sliding brass band and cam. In drum and band are corresponding diamond shaped discharge openings, quickly adjusted for any kind of seed. Inside the drum, shields cover the openings, and insure regular sowing with a full hopper or a thimbleful. Holds 3 pts. of seed. Wt. packed 47 lbs. Price with tools as shown, \$16.50

## NO. 4 PLANET JR.

### Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

This tool combines in a single convenient implement a capital hill-dropping seeder, a continuous row-seeder, single wheel hoe cultivator and garden plow. Holds  $2\frac{1}{2}$  qts. of seed. Price complete \$20.25. Weight 50 lbs. As Seeder only \$16.25

## NO. 25 PLANET JR.

### Combined Hill and Drill Seeder and Double Wheel Hoe, Cultivator and Plow

Valuable for gardeners who have enough acreage for a double-wheel hoe. Combines in a most practical way the No. 4 Drill and No. 12 Double and Single Wheel Hoe. Holds  $2\frac{1}{2}$  qts. of seed. Weight packed 61 lbs. Price \$23.75



# Planet Jr. Garden Tools

## PLANET JR. SINGLE WHEEL HOES

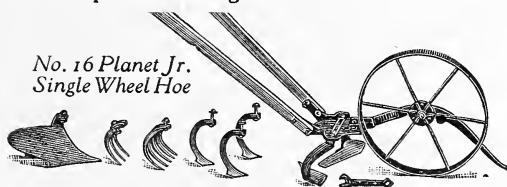
The handles are adjustable in height. The frame is steel, convenient and strong, with quick change device by which to exchange the tools without removing the nuts. Nos. 16 and 17 wheels, frames and handles are alike, but the attachments sold with each vary.

The hoes are the most valuable of all the wheel hoe attachments; are oil tempered and polished. Use the 4-inch for 6, 10 or 12-inch rows; the 6-inch for rows 12 inches and upwards.

The Plows are invaluable; use them with points together for opening furrows for manure, seed, etc.; then exchange sides for covering; use them also for plowing away from or toward the crop, both sides at once.

The cultivating teeth for deep or shallow work, and for marking out.

Leaf lifters save time and enable fine work to be done close to the row without additional labor, when plants are large or leaves are flat on the ground.



No. 16 Planet Jr.  
Single Wheel Hoe

## NO. 16 PLANET JR.

### Single Wheel Hoe, Cultivator, Rake and Plow

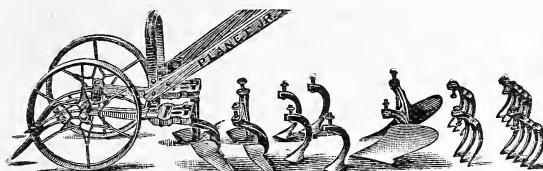
The No. 16 has 15-inch steel wheel, steel frame, one pair of 6-inch hoes, three cultivator teeth, one large garden plow, a 4 and a 7-inch rake, one leaf guard. The plow hoes and cultivator teeth are oil tempered. Is a complete equipment for every requirement. Weight 26 lbs. Price \$11.25

## NO. 17 PLANET JR. SINGLE WHEEL HOE

You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

Weight 24 lbs. Price \$9.75

## PLANET JR. DOUBLE WHEEL HOES



No. 11 Planet Jr.

## NO. 11 PLANET JR.

### Double Wheel Hoe, Cultivator, Plow and Rake

The No. 11 is considered the best combined Double and Single Wheel Hoe made, having the largest assortment of useful tools and the frame being adjustable for any depth work. The attachments and their position can be changed in a few seconds. All edge tools are oil tempered, see attachments illustrated—can be used in narrow rows as a single wheel hoe—as a double wheel hoe the arch will straddle plants 20 inches high.

Weight packed 39 lbs. Price with Attachments as in cut \$16.75.

## PLANET JUNIOR SPECIALS

We have only a limited number of the following tools, and offer at reduced prices until sold:

**No. 70. Pivot Wheel Riding Cultivator Furrower and Ridger. Special at \$50.00**

**No. 4. Plain five-tooth expanding—one horse Cultivator with wheel. Weight 56 lbs. Special at \$17.00**

**No. 45. Riding Harrow and Cultivator, for preparing ground for grain or vegetables or for general orchard work—complete with extension. Special at \$50.00**

**No. 41-D. Universal and Orchard Cultivator—cultivator 4-feet special extension can be used to work up to 6 feet, 6 inches. Special until sold out at \$50.00**

**No. 81. Horse Hoe Cultivator and Hiller, adjustable to all widths of hillling and cultivating up to 4 feet. Weight 90 lbs. Special until sold out, at \$17.50**

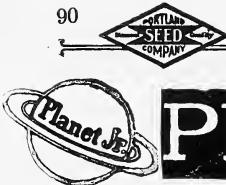
## HAND TOOLS

**Planet Jr. Grass Edgers** runs on the walk or grass, equally good on curved or straight work. Weight 26 lbs. Price \$9.75

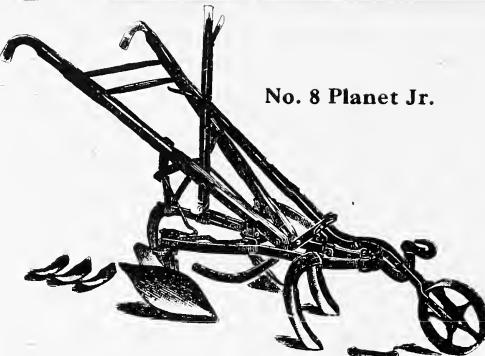
**No. 28. Hill and Drill Seeder and Wheel Hoe.** Weight packed 64 lbs. Price \$22.50

**No. 13. Double Wheel Hoe—1 pair 6-inch Hoes.** Price \$8.00

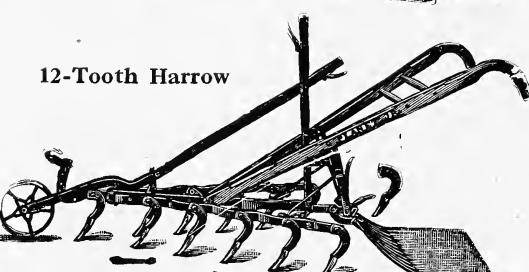
**No. 13½. Double Wheel Disc Hoe.** Weight packed — lbs. Price \$10.00



# Planet Jr. Garden Tools



No. 8 Planet Jr.

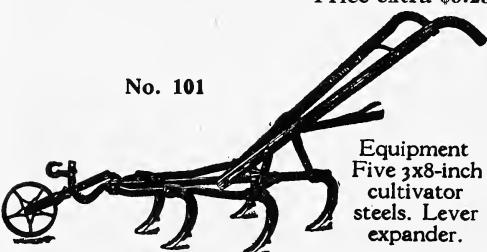


12-Tooth Harrow

A strawberry runner cutter consisting of a 10-inch flat steel disc mounted on an outrigger, to be used as an attachment for 12-tooth harrow.  
Price extra \$3.25

No. 101

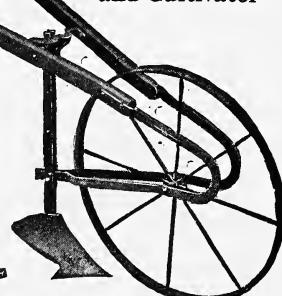
Equipment  
Five 3x8-inch  
cultivator  
steels. Lever  
expander.

HALL'S No. 6  
Garden Plow  
and Cultivator

5 Tools—  
Plow, Rake,  
Weeder and  
Double Diamond  
Point Markers  
Has 24-in. Wheel



The Swing Frame and extended curved handles insure easy running and a steady draft. The tools are sharpened and polished and will scour in use. Weight packed 24 lbs. Price \$6.00



## No. 8 PLANET JR.

### Horse Hoe and Cultivator

In general use throughout the civilized world. Is strongly built to withstand incredible strain, yet it is light and easy to handle. It opens and closes furrows, hoes right up to the plants without danger of injuring, throws dirt to or from the row and throws back from center again. With Steel Wheel. Weight packed 83 lbs. Price \$21.75.

## No. 9 PLANET JR.

### Horse Hoe and Cultivator with Steel Wheel

This admirable tool has a plain wheel instead of lever wheel. It has the high frame, patented hollow steel standard, patent lever Star wheel, patent lever expander, and hollow steel wheel arms. Weight packed 70 lbs. Price \$19.00.

## PLANET JR. No. 90

### 12-Tooth Harrow, Cultivator and Pulverizer

Works deep or shallow, coming up close to row without injuring plants, cuts out all the weeds, stirs and mellows the soil. Width, adjustable, 12 to 32 inches. A special favorite with strawberry growers, market gardeners and truckers. With Steel Wheel Complete. Weight packed 74 lbs. Price \$21.50. Without Pulverizer, price \$18.25. Plain, price \$14.50.

## No. 101 PLANET JR.

### Plain Cultivator With Wheel

This machine is the "latest word" in design. The lever, instead of standing perpendicular, slants backward between the handles, free from danger of being bent or broken, and prevents injury to crops under cultivation. While the design is one of simplicity, it is very strong and most accurate in its work, and the tool has so few parts that there is no danger of its ever getting out of order. With Wheel, weight packed, 56 lbs. Price \$14.25.

## ATTACHMENTS FOR WHEEL HOES

Peat Land Hoes—Weight 5½ lbs. per pair.

Per pair \$2.75

Disc Hoes—Weight 5½ lbs. per pair.

Per pair \$4.00

6-Inch Hoes—Complete. Weight 2¼ lbs. per pair.

Per pair \$1.85

4½-Inch Hoes—Complete. Weight 2 lbs. per pair.

Per pair \$1.75

3 Prong Cultivator Teeth—Weight 2½ lbs. per pair.

Per pair \$2.50

8-Inch Onion Harvester—Weight 1¼ lbs. \$2.00

Cultivator Teeth. Each 55c

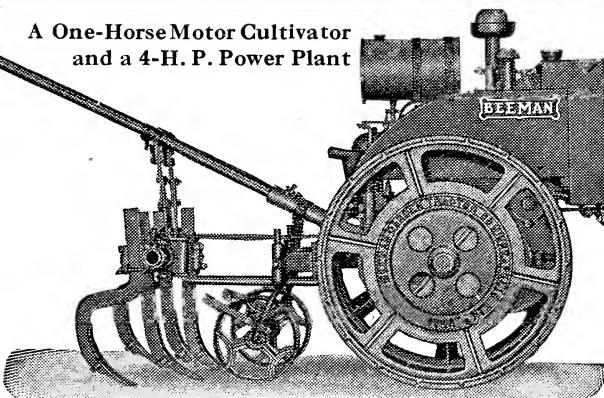
# BEEMAN

GARDEN TRACTOR

A One-Horse Motor Cultivator  
and a 4-H. P. Power Plant

3 years of  
careful tests  
under working  
conditions have  
perfected the

*Beeman*  
and guarantees  
the user against  
faulty design  
or construction



Cultivates  
Harrows  
Plows  
and delivers  
4-Horse Power  
for operating  
Farm  
Machinery



Plowing

The BEEMAN starts and handles so easily that a child can operate it.

Adjustable attachments can be provided for operating between rows of different widths, and special attachments for cultivating three rows at once.

Adjustable frames make it possible to cultivate every row to its proper depth, no matter how uneven the ground.

All standard makes of Tools, Hoes, Weeders, Discs, Cultivators, Knives, etc., easily attached to the Tool Frame.

On Beaver Dam, and Muck Land, that is too soft for Horses, the broad wheels with their extension rims makes possible fast and thorough work with the BEEMAN.

No waste ground; you can work close up to and right along a fence and turn in a very small space.

## Prices F. O. B. Portland

BEEMAN TRACTOR with one row cultivating attachment as illustrated above. Complete with Magneto, Belt Pulley and air cleaner.....\$325.00

### EXTRA ATTACHMENTS

Harrow Cart with 3-foot, 3-inch Acme Harrow. Price.....\$38.75

The Disc Harrow and Spring Tooth Cultivator also attach to the Harrow Cart.

Harrow Cart with 8 Disc Harrow..\$61.00

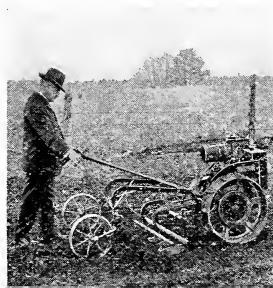
4-inch Extension Rims for Drive Wheels, per pair.....\$12.50

7-inch Plow complete with hitch and extension frame. Price.....\$33.50

BEEMAN CATALOG and complete price list of tools and attachments mailed on request.



Disc Harrowing



Acme Harrowing



One Row Cultivating, Astride the Row



Running Washing Machine

**No Gardener can afford to be without a BEEMAN**



# The Clipper Grain and Seed Cleaner

Used by all Agricultural Colleges and by the U. S. Department of Agriculture

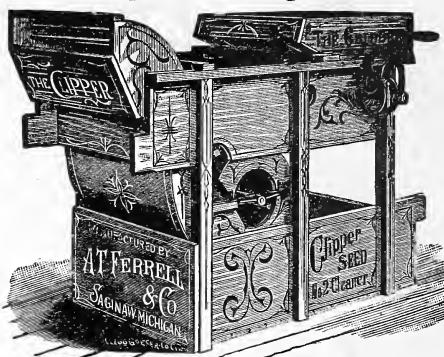
No work done on the farm brings such large returns as thoroughly preparing the grain and seed by recleaning and grading for planting. This insures an even stand of strong, healthy plants, and a larger yield of a higher grade. The "Clipper" cleaner is especially adapted to this kind of work on account of its ability to separate the small, also the light, dead seed or grain from the perfect seed or grain.

Other mills depend entirely upon screens for this work, and with unsatisfactory results. The "Clipper" screens all straw and foreign matter from the grain before it enters the air shaft, and the "Vertical Blast" does the rest.

Screens are so arranged as to be in plain view and of easy access to the operator while machine is in operation, and a set of 10 being furnished with either the No. 1B or No. 2B. These are ample for general work—but special screens can be furnished for any cleaning operation.

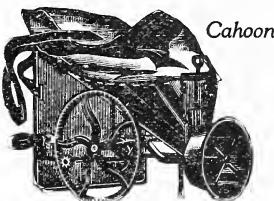
The "Clipper" is a first-class, inexpensive and durable mill for general use.

**PRICES.** No. 1B—Capacity 40 bu. wheat or 12 bu. of clover per hour. Wt. packed, 200 lbs. \$34.00.  
No. 2B—Capacity 20 bu. clover seed per hour. Wt., packed, 250 lbs., \$43.00.



Guaranteed to do the most perfect work  
of any Hand Seed Cleaner manufactured

We have supplied "Clipper Cleaners" to the mills, dealers and prominent growers of the Northwest. If you grow grain or seed and do not own a "Clipper," you are losing many times its cost every year. Let us send you The "Clipper" Catalog of hand and power cleaners. All sizes and prices. A "Clipper" will improve the quality and increase the yield of grain.



Cahoon

## Broadcast Seed Sowers

**CAHOON**—The standard broadcast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower; has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs.

Price \$4.50

**TIN HORN SEEDER**—Adjustable. A good serviceable seeder at a very low price. Weight 1 lb.

Each 90c



Fig. 14 Fig. 16

Fig. 20 Fig. 22

### CORN PLANTERS

**GORDON AUTOMATIC**—One Hand (Fig. 20)—Puts the right number of kernels just where you want them and at the proper depth, requiring only one hand, either right or left. Weight, packed, 6 lbs.

Price \$2.25

**ACME**—(Fig. 22)—A two-hand planter. Light, well made, and especially adapted to heavy, cloddy or stony soils. Adjustable—from popcorn to large kidney beans. Weight, packed, 4 lbs.

Price \$1.75

### MASTER'S PLANT SETTER

With a "Masters" you can set, water and fertilize 10,000 plants a day and do better work than if set by hand. Works as fast as you walk. Sets cabbage, kale, celery, tomatoes and vegetable plants of all kinds. Weight, packed, 5 lbs.

Price \$5.50

### POTATO PLANTERS

**PEERLESS**—Tubular (Fig. 16)—This light tubular planter locks itself as it is lifted out of the ground and the next potato may be dropped in at once. Opens automatically by forward movement. Weight, pckd., 5 lbs.

Price \$2.25

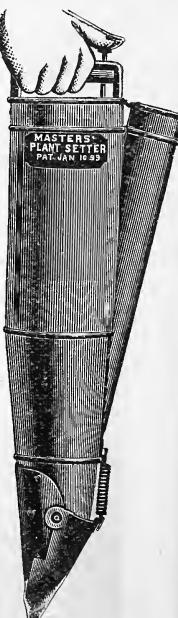
**PINGREE or ACME**—(Fig. 14)

—Similar in action to the tubular. You lift the planter up to drop in the potato. Weight, packed, 4 lbs.

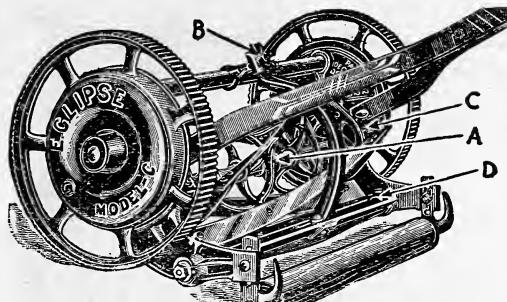
Price \$1.50

### CORN KNIFE

Best style broad tapered blade. Length including handle, 22 1/2 in. weight, packed, 2 lbs. Price 50c



# Garden Tools and Supplies



## RAFFIA

Baskets, jewel boxes, shopping bags, mats, cushions, slippers and hats are but a part of the many useful articles woven with Raffia.

In ordering Raffia by mail, be sure to add postage on 1 lb. or more.

**RAFFIA**—Natural color. Price  $\frac{1}{4}$  lb 30c; postpaid, 35c; not postpaid, per lb \$1.00.

**COLORED RAFFIA**—Any shade, the popular colors being red, yellow, orange, black blue and purple. Per pkg postpaid 25c

**RAFFIA NEEDLES**. Per doz postpaid 15c

SAMPLES showing colors of Raffia sent for 2c to cover postage.

## BASKET MAKING

Tells how to use Raffia and Reeds. 25c postp'd

## Flower Pots



Flower Pot Azalea or Fern Pots Bulb Pan Hanging Basket

## Flower, Fern, Azalea Pots, and Bulb Pans Same Price

Size	Each	Dozen	Saucers
2-inch.....	\$0.02	\$0.20	Each
3-inch.....	.03	.30	
4-inch.....	.05	.40	\$0.04
5-inch.....	.07	.75	.04
6-inch.....	.10	1.00	.07
7-inch.....	.15	1.50	.10
8-inch.....	.20	2.00	.10
9-inch.....	.30	3.25	.15
10-inch.....	.50	.....	.20
12-inch.....	.90	.....	.30

## HANGING BASKETS

These are well made and are better than wire baskets, as plants do not dry out so quickly.

8-inch.....	Each \$0.25	Doz. \$2.50
9-inch.....	" .30	" 3.00
10-inch.....	" .40	" 4.25
12-inch.....	" .60	" 6.50

NOTE—At above prices we will pack the pots carefully, but buyer must pay freight or express charges.

## LAWN MOWERS

**ECLIPSE—Self Sharpening**—This is one of the best built, most durable and satisfactory Lawn Mowers. The thumb-screws for bringing the revolving and stationary blades into position are easily adjusted—as is also the arrangement for sharpening all blades to fit so they cut like shears. Bronze bearings.

14 in. cut, 10 in. wheel.....	\$14.00
16 in. cut, 10 in. wheel.....	15.00

## DUNHAM'S ROLLER BEARING

## LAWN ROLLERS

### PRICES—F. O. B. PORTLAND

	Sec.	Wgt.	
LR404.....	2	250	\$18.00
LR407.....	2	300	21.00

## One and two-Section "Water-Weight" Rollers

These can be filled with water or sand, and when empty are easily transported, adjusting the weight to suit.

	Sec.	Empty	Water	Sand		
WB5.....	18x24	1	75	300	500	\$16.75
WB7.....	24x24	1	125	500	800	21.50
WB11.....	18x24	2	100	300	500	22.75
WB13.....	24x32	2	170	650	1000	30.00
WB15.....	24x24	2	145	500	800	26.50

## FOR FLORISTS AND NURSERYMEN

**PLANT STAKES**—Round cedar, painted green, 3 ft., 85c doz.; 3½ ft., \$1.00; 4 ft., \$1.25; 5 ft., \$1.75; 6 ft., \$2.50.

**PENCILS**—Indelible, for marking. Each 15c

**WIRE HANGING BASKETS**—8 in. 20c; 10 in. 25c; 12 in. 30c; 14 in. 50c.

**VITAPLASTIC—Glazing Compound**—The best, most dependable glazing material. Never hardens or cracks. Write for circular.

Price, gal. \$2.00; 5 gal. \$9.50; 30 gal. \$52.50

**VITAPLASTIC MACHINE** \$3.50

**TIN FOIL**—Florist—Regular stock. Per lb. 30c

## Wooden Labels

**TREE LABELS**—Painted iron wire.

Per 100 20c; per 1,000 \$1.65

Unpainted iron wire. Pr 100 15c; pr 1,000 \$1.35

Painted copper wire. Per 100 25c; per 1,000 \$2.00

Unpainted copper wire. Weight pkd., 4 lbs. per 1,000. Per 100 20c; per 1,000 \$1.75

## POT LABELS—

4-inch. Plain, per 100 15c; 1,000 \$1.05

Painted, 1,000 \$1.35. Wt. pkd., 4 lbs. per 1,000.

5-inch. Plain, per 100 20c; 1,000, \$1.30

Painted, 1,000, \$1.55. Wt. pkd., 6 lbs. per 1,000

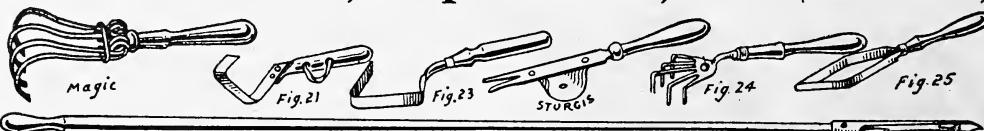
6-inch. Plain, per 100, 20c; 1,000, \$1.75

8-inch. Plain, per 100, 30c; 1,000, \$2.35

Painted, 1,000, \$3.00. Wt. pkd., 11 lbs. pr 1,000

**GLAZING POINTS**—Peerless—Best point made. 1,000 in box. Wt., 2 lbs. Price 75c

# Garden Tools, Implements, Etc. (Continued)



Hall's Dandelion Puller



Norcross Adjustable Cultivator-Hoe

Detachable clamp to use on Wheel hoe,  
10c extra.

Like a human hand, the fingers of the "Norcross" work closely around the plants without injury. Keeps down weeds, saves moisture.

**FIVE PRONG** for regular garden work; 4-ft. handle, weight 4 lbs. Price \$1.35

**THREE PRONG** for narrow rows and close work, 4-ft. handle, weight 3 lbs. Price \$1.00

**DANDELION PULLERS**

**Sturgis** (see cut)—A most convenient tool for digging weeds. Weight 1 lb. **Each 40c**

**Halls** (see cut)—Pulls the root without tearing up the lawn; long handle; polished steel blade. Weight 2 lbs. Price 60c

**GARDEN TROWELS**

No. 213

See descriptions of numbers on cuts.

Don't class these tools with the cheap stock offered by the department stores.

**No. 85**—New style long handle. Weight 1 lb. Price 50c

**No. 213.**—Six inch; good steel trowel, with malleable iron shank. Weight 1 lb. Price 15c

**No. 217**—Six inch; steel transplanting trowel. Weight 1 lb. Price 25c

**No. 217**—Eight inch; steel transplanting trowel. Weight 1 lb. Price 30c

**No. 217A**—Transplanting hoe trowel, used in setting out plants. Weight 1 lb. Price 50c

**No. 216**—Ladies' flower trowel. Weight 1 lb. Price 10c



## "WOOD-LARK" TRADE MARK SQUIRREL AND GOPHER POISON

QUICK, CERTAIN,  
→ DEADLY ←

Exterminates Squirrels, Sage Rats, Field Mice, Pocket Gophers, Prairie Dogs, Crows. Use early when green food is scarce. Price 1 lb. package 40c

**HAND WEEDERS**

**Magic Weeders**—Made of best quality hard steel wire, an ideal tool for fining the surface soil. We offer three sizes, illustrated above:

**Magic No. 0**, 3 tines, short handle, weight 1 lb. Price 25c

**Magic No. 4**, long handle, 4 tines Price 50c

**Magic No. 5**, long handle, 4 tines, heavy wire, wt. 3 lbs., Price 60c

**Fig. 21. Lang's.** Weight, 1 lb. Price 30c

**Fig. 25. Noyes'.** Weight 1 lb. Price 30c

**TRAPS****REDDICK MOLE TRAP**

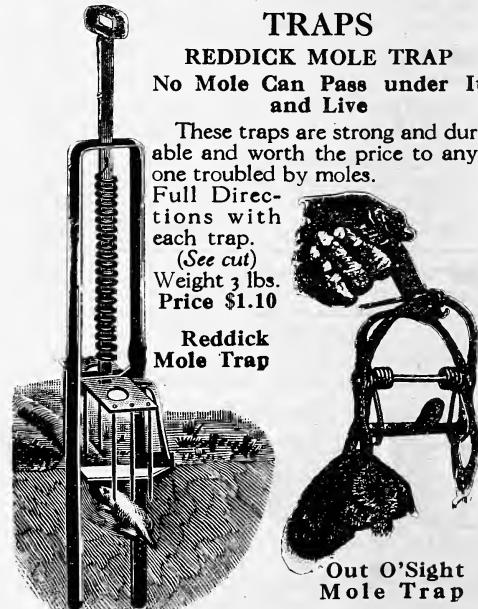
No Mole Can Pass under It and Live

These traps are strong and durable and worth the price to anyone troubled by moles.

Full Directions with each trap.

(See cut)  
Weight 3 lbs.  
Price \$1.10

Reddick  
Mole Trap



Out O'Sight Mole Trap

**OUT O'SIGHT MOLE TRAP**

One of the best. Sure to "get them." Weight 2 lbs. Price \$1.00

**GOPHER TRAP**

**California Box**—Similar to "Out O'Sight," except this trap has sides boxed up; never fails. Weight, 1 lb. Price, each, 25c

**"SET EASY" GOPHER TRAP**

Fits right into the runway. Price, each 25c

**THE OFFICIAL RAT AND MOUSE TRAPS**  
**Rats Nibble Upward.** The "Official" always gets them.

**Official Rat Trap**, weight 1 lb. Each 20c

**Official Mouse Trap**, weight 4 oz. Each 5c

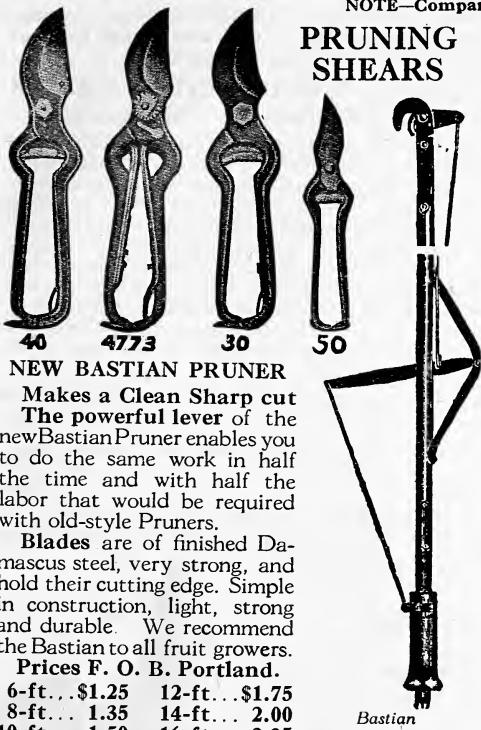
**P. S. CO.'S TRAP GUN**

Breech loader, 16 gauge; can be set for coyotes, coons, hawks, etc., and is the most effective way of getting moles and gophers. Safe, simple, durable. Wt. 4 lbs. Price \$1.50



# Garden Tools, Implements, Etc. (Continued)

NOTE—Compare Numbers on cut to those in descriptions



## PRUNING SHEARS

No. 4773—9-inch; full polish, with double brass springs; best American make. Weight 1 lb.

Price \$1.85

No. 40—9-inch; bright finished, polished blade, spiral steel spring; made for hard service. Weight 1 lb.

Price \$1.25

No. 41—Same as No. 40, except with ratchet nut. Weight, 1 lb.

Price \$1.45

No. 30—7-inch; black finish; polished blade; very good. Weight 1 lb.

Price 90c

No. 31—Same as No. 30, only 9-inch ratchet nut; an American make. Wt., 1 lb. Price \$1.00

No. 50—Five and a half-inch, nickel-plated; small, but of best material; fine for ladies. Weight, 1 lb.

Price \$1.00

No. 51—Same as No. 50, except that it is 6½ inches long. Weight, 1 lb.

Price \$1.25

## NEW BASTIAN PRUNER

Makes a Clean Sharp cut  
The powerful lever of the new Bastian Pruner enables you to do the same work in half the time and with half the labor that would be required with old-style Pruners.

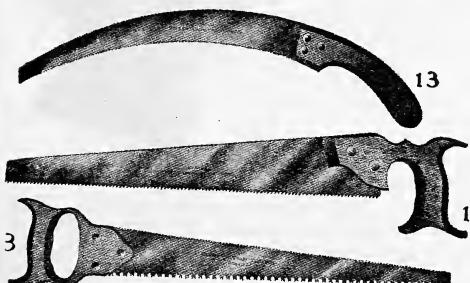
Blades are of finished Damascus steel, very strong, and hold their cutting edge. Simple in construction, light, strong and durable. We recommend the Bastian to all fruit growers.

Prices F. O. B. Portland.

6-ft...	\$1.25	12-ft...	\$1.75
8-ft...	1.35	14-ft...	2.00
10-ft...	1.50	16-ft...	2.25

## PRUNING SAWS

No. 13—California Pruner (Crescent). Finest silver steel. 14 inch. Each \$1.00  
No. 1—Pruning Saw. Made of genuine silver steel. 16 inch, each \$1.25; 18 inch, ea \$1.40  
No. 3—Duplex Pruner. 16 inch, each \$1.45; 18 inch, each \$1.65



## GRASS HOOKS or SICKLES

These are the latest style and shape

Village Blacksmith—Hand forged, weight 1 lb.

Price 65c

King of Grass—No. 1065. Wt. 1 lb. Price 25c

## GRASS SHEARS

For trimming borders and edges; 6-inch blade.

"Razor Edge"—No. 1162. 1 lb. 50c

Village Blacksmith—No. V51. 1 lb. \$1.00

We offer special designs Nos. 777 and 707. The blades make a clean cut without bruising—strong handles are securely set in steel sockets—a strong and durable shear, built for service.

No. 777—30 inch with lock nut. Weight 5 lbs. Each \$1.65

No. 707—30 inch plain, wt. 5 lbs. Each \$1.25

Fig. 35—Standard pattern. Satisfactory for light work; a good value.

26-inch handle, weight 2½ lbs. 75c—41-inch handle, weight 3 lbs. 90c

## KNIVES—Prices Postpaid

No. 8—Budding Knife—Ebony handle, stationary ivory bark opener. Price \$1.00

No. 8½—Budding Knife—Same as above, only one size larger.

No. 3½—Pruning Knife—Large horn handle, very strong. Price \$1.50

No. 4—Pruning Knife—Polished wood handle. Price 80c

No. 7—Grafting Knife—Plain wood handle, stationary blade; smaller. Price 25c

## BARNETT FRUIT PICKING PAIL

### Built for Service

Galv. Iron with strong canvas open bottom.

A great labor saver.

Wt. 3½ lbs.

Price, each, \$2.00



## NORTHWEST FRUIT PICKING LADDER

6, 8, 10 and 12 ft. lengths. Strong, light and serviceable.

Price 40c per foot

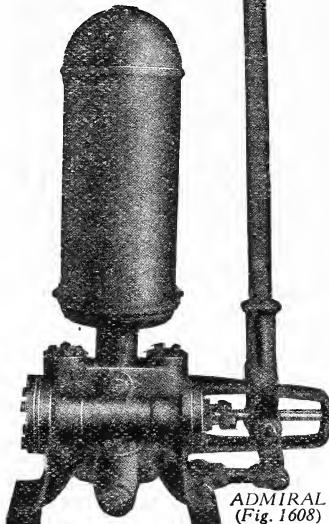
## GRAFTING WAX

Lion Brand—¼ lb 15c—½ lb 25c—lb 45c

Add postage at zone rate.



The Principles of  
Fruit Growing  
**BAILEY**  
516 Pages, \$1.85  
Postpaid



**ADMIRAL**  
(Fig. 1608)

## Gould's Spray Pumps

We are General Agents for the Gould Sprayers, guaranteed to be the best built, most lasting and of the highest efficiency. They are the recognized standard.

### GOULD'S "ADMIRAL" DOUBLE ACTING SPRAYER

*For Large Orchards, Parks, Groves, Etc.—Very Powerful*

The "Admiral" is double acting and produces a steady stream at the nozzle, is built for continuous hard work and high pressure. Especially designed for large orchards, and will meet every requirement. The brass cylinder lining is of heavy seamless tubing, with a cast bronze cylinder head, and can be easily removed. The valves are all brass, and each one in a separate valve box. They are easily reached by removing the bronze valve box covers. The brass piston rod is outside guided, making a perfectly straight thrust through the stuffing box, which is outside packed. Capacity four leads of hose, and will be found fully as serviceable as a power sprayer and one of the best spray pumps for power outfit.

**Outfit A**—Pump only, strainer and suction hose couplings \$40.00

**Outfit B**—Pump with 8 feet suction hose and strainer... \$43.00

**Outfit C**—Pump with 8 feet suction hose, two 25-foot leads, best Spray hose, two 8-foot bamboo extensions, with Globe valves and nozzles..... \$52.00

**Admiral Pump with 3-inch cylinder** furnished on any of above outfits for \$3.00 extra. For pressure gauge, add \$1.50

**Pitman** to connect Admiral for power.  
Extra, \$1.25

### MONARCH TWO-CYLINDER SPRAY PUMP

**Fig. 1506—Monarch**—We believe this to be the best of the large pumps. The long lever can be shifted to pull or push, to lift or drop, as the operator desires. Pump stands outside of barrel, and all parts can be easily looked after, cylinders are perpendicular; there are no valves in the plungers; the packing is on the outside, and can be tightened any time, without taking anything to pieces; the four brass valves (each one by itself and under a separate cap), can be reached by merely unscrewing the cap.

**Outfit A**—Pump only, including strainer and hose connection.... \$30.00

**Outfit B**—Coupled with 6 feet  $\frac{3}{4}$ -inch suction hose..... \$32.50

**Outfit C**—Pump, suction hose, 25 feet best spray hose, 8-foot bamboo extension, Globe valve and nozzle..... \$40.00

For pressure gauge, add \$2.00.

### POWER OUTFITS

We assemble outfits in any manner desired by customer, and suggest the right attachments for special purposes. Attaching any standard engine specified. Write us your requirements. We can save you money and guarantee a satisfactory equipment.



"STANDARD"  
Figure 905 1/4

### GOULD'S STANDARD SPRAYER

*Powerful, Large Capacity, Durable*

The "Standard" Sprayer is made with a  $2\frac{1}{2}$ -inch cylinder. The cylinder is brass-lined, the plunger brass-encased and the valves are brass, making all working parts proof against the spraying mixtures. Fits either the end or side of a barrel.

**Outfit A**—Pump and strainer only..... \$12.00

**Outfit B**—Pump with agitator and suction pipe..... 13.75

**Outfit C**—Same as B, with 1 15-foot lead of hose and nozzles.. 16.00

**Outfit D**—Same as C, with 2 15-foot leads of hose and nozzles... 20.00

**Outfit E**—Same as D, with 2 bamboo extensions and globe valves 23.00

We supply a barrel and mount sprayer for \$2.50 extra.

### FIELD CROP OR POTATO SPRAYER

A practical 4-row adjustable attachment including nozzles, for use with any barrel or power pump. A first-class outfit built for service.

Price Complete \$15.00

Corona Dry Powdered Arsenate of Lead is Best—See Sprays

## Spray Pumps and Sprayers (Continued)

### GOULD'S POMONA—Our Leading Barrel Pump

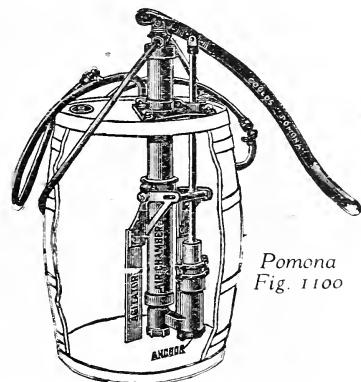
**Fig. 1100**—"Pomona" is the best orchard spray pump for mounting in a barrel. It has great power and capacity. All working parts bronze, including plunger, gland, valves, valve seats, etc. Plunger is outside packed. Valves are easily accessible.

**Outfit A—Pump only** ..... \$22.00

**Outfit B—Pump with 12½ feet best spray hose, one Vermorel nozzle, one 8-foot bamboo extension, with cut-off, complete** ..... \$26.00

**Outfit C—Same as Outfit B** ..... \$28.50

**Outfit D—Consisting of one No. 1100 pump with two 12½-foot leads of spray hose, two Vermorel or Seneca nozzles, two 8-foot bamboo extensions, with cut-off; all in working order and mounted in barrel** ..... \$35.50



Pomona  
Fig. 1100

### FRUITALL

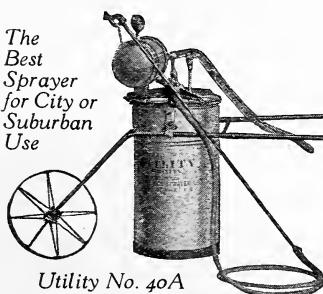
**Fig. 1188**—"Fruitall" Spray Pump is made on the same general lines as our famous "Pomona." Lighter and of smaller capacity.

**Outfit A—Pump only** ..... \$16.00

**Outfit B—Pump with 15 feet of spray hose and one Vermorel nozzle, all complete** ..... \$18.75

**Outfit C—Pump mounted in barrel, 15 feet hose, 8-ft. bamboo nozzle and cut-off, all complete** ..... \$24.50

**NOTE**—Extra spray hose at 17½ cents per foot.



Utility No. 40A

### UTILITY NO. 40-A

**The One-Man Outfit—See Illustration. For all Spraying Operations, Whitewashing, etc.** Pump has heavy brass plunger, specially packed to resist chemicals. All valves and working parts brass. 18 gallons heavy galvanized tank, mechanical agitator, special angle nozzle with spray control; 10-foot 5-ply Spray Hose, 4-foot extension. A special feature is the pressure tank that can be pumped up to 250 lbs. Much spraying can then be done without pumping, enabling one man to do the work. Weight complete 100 lbs. Price \$35.00

### UTILITY NO. 40

Same as No. 40-A without air pressure tank. Weight complete 85 lbs. Price \$27.50

### IDEAL PORTABLE SPRAYER

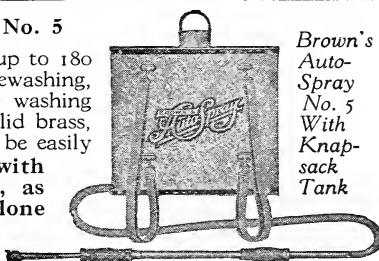
All working parts are brass with bronze ball valves. Has mechanical agitator. Galvanized tank holds 15 gallons. 10 feet of spray hose; 8-foot extension. Spray nozzle and leakless shut-off similar to the No. 40. A first-class outfit. Weight 75 lbs. Price \$25.00



Auto Spray No. 1

### BROWN'S AUTO-SPRAY No. 5

Will spray at high pressures up to 180 lbs., or can be adjusted for whitewashing, or to throw a solid stream for washing buggies or fighting fires. Is solid brass, double-action ball valves. Can be easily and quickly taken apart. Price with **Galvanized Knapsack Tank**, as illustrated, \$8.50—**Pump alone** \$5.00—**Extra Extension** 75c each.



Brown's  
Auto-  
Spray  
No. 5  
With  
Knap-  
sack  
Tank

### BROWN'S AUTO SPRAY No. 1

This is the strongest, simplest compression sprayer. The brass air pump valves and washers resist oil and corrosive solutions. Tank holds 3½ gallons; has patent non-clogging nozzle. Price, with **auto-pop nozzle**, galvanized \$6.50; brass \$10.00

### ACME COMPRESSED AIR SPRAYER

Tested to 60 lbs.; has brass pump seat, bronze ball check-valve; seamless brass cylinder solid brass spiral point; self-cleaning nozzle—an exclusive feature, gives a finer spray than other pressure sprayers. capacity 3 gallons. Price, Galv. \$7.50; Brass \$11.50

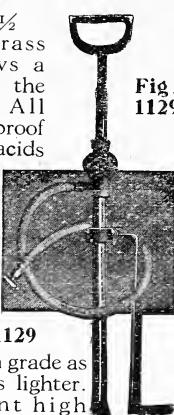


# HAND PUMPS AND SPRAYERS

Fig.  
561½

Premier 561½  
A powerful brass pump. Throws a solid stream or the finest spray. All working parts proof against acids and oils.

Strongest and best Bucket Pump.  
Price \$7.00

Fig.  
1129

Bordeaux 1129

Of the same high grade as the above, but is lighter. Gives constant high pressure but not a solid stream. Price \$6.50

MODOC

A splendid value in a bucket pump—made of brass with large air chamber, giving heavy pressure. Same general style as Fig. 1129.

Price \$5.00



Brown's Continuous Hand Sprayer

ASPINWALL SPRAYER

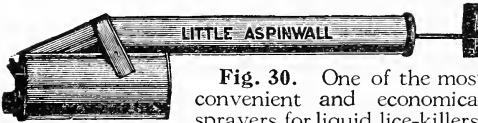
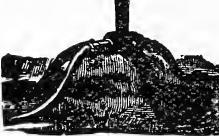


Fig. 30. One of the most convenient and economical sprayers for liquid lice-killers, sprays, etc. Weight 1¼ lbs. Price 70c

PLUVIUS LAWN SPRINKLER

Properly constructed, iron stand, upper part all brass. Turns with small force. Weight 3½ lbs. Each \$2.00



Pluvius

BUSY  
A regular water flitter, runs easily. Weight 2 lbs.

Price \$1.00



Busy

Corona Hand Duster



LEVER HANDLE BUCKET PUMP No. 324

The lever handle and large air chamber make this the most powerful bucket pump and the easiest one to operate. All working parts are solid brass with brass ball valves and patent agitator. Fitted with graduating Vermorel nozzle to throw a fine or coarse spray or a solid stream.

Weight 8 lbs.

Price \$7.50



No. 324

PORTLAND SEED CO.'S BUCKET PUMP

Has brass cylinder and valves, two nozzles, for fine or coarse work. The best low-priced pump on the market. Weight 6 lbs. Price \$4.75

P. S. Co. Bucket Pumps

BROWN'S CONTINUOUS HAND SPRAYER

This is the best hand sprayer to date; has a compressed air chamber, which makes pressure continuous; has brass nozzle, adjustable to spray, fine or coarse; brass ball valve; simple in construction; light, durable; works easy. Weight 1½ lbs. Price, tin \$1.00; galvanized \$1.15; brass \$1.30

ACME SINGLE POWDER BELLOWS



Fig. 20

Fig. 20. Excellent for blowing powder on vines and bushes; good size, and works fine. Weight 2 lbs. Price \$1.25

BLOW POWDER SPRAYER

A serviceable tin dust sprayer. Weight 1¼ lbs. Price each \$1.00

INSECT POWDER GUN

Detachable bottom for filling. For use in applying insect powder of any kind on poultry, dogs or cats.

Price each small 15c, large 30c, postpaid

“CORONA DRY” AND CORONA DUSTING SULPHUR

Will protect your vegetable garden from leaf-eating pests and fungus diseases.

Price, \$2.50  
Wt., packed, 3 lbs.

The principle employed in the “Corona” Hand Duster was awarded the Gold Medal for mechanical efficiency at the Panama-Pacific International Exposition and no other dusting device in its class can approach it for efficiency, ease of manipulation, simplicity and durability.



## NOZZLES, CONNECTIONS AND HOSE SUPPLIES

**Fig. 1501.** Non Clog, Jr. Best hop nozzle; produces a fog in great volume at a light pressure. Weight 8 oz. **Price \$1.00**

**Fig. 16.** Vermorel Nozzle. With degorger, affords a conical discharge. Very popular. Wt. 4 oz. **Price \$1.25; extra cap. Fig. 3, 35c**

**Fig. 81.** Seneca. Gives a very wide spray; discharge easily graduated. Weight 5 oz. **Price \$1.50**

**Fig. 17.** Bordeaux. Weight 6 oz. Use this nozzle for whitewashing. **Price \$1.50**

**Fig. 26.** Hose Connection. For nozzle or extension. Weight  $\frac{1}{4}$  lb. **Price 25c**

**Fig. 65.** Hose Reducer. For nozzle or extension. Weight 3 oz. **Price 45c**

**Fig. 1186.** Double Cut-off. Weight 2 lbs. **Price \$2.50**

**Fig. 20.** Nozzle Ell. Weight 2 oz. **Price 25c**

**Figs. 11-12.** Brass Yerdon's Bands,  $\frac{1}{2}$  or  $\frac{3}{4}$ -inch. Each 10c; doz. 75c; Postpaid 85c

**Fig. 13.** Caldwell Bands.

Doz. postpaid  $\frac{1}{2}$ -inch or  $\frac{3}{4}$ -inch 35c

**Fig. 1074.** Brass Y,  $\frac{1}{4}$ -inch, for nozzle only. Weight  $\frac{1}{4}$  lb. **Price 50c**

**Fig. 25.** Bamboo Extension. Has iron pipe inside of bamboo, threaded for nozzles and stock-cock. Price, with stop-cock (Fig. 54)—  
2 to 4 feet. .... \$2.00 10 ft. .... \$2.85  
6 ft. .... 2.35 12 ft. .... 3.10  
8 ft. .... 2.60

Without Stop-cock Deduct 90c

**Fig. 54.** Stop-cock. Weight  $\frac{1}{2}$  lb. Price 90c

**Fig. 18.** Hose Coupling.  $2\frac{1}{2}$ -inch shank, for heavy pressure spraying, pair 65c postp'd.

## SPRAY AND GARDEN HOSE

All our hose, excepting spray, is furnished in 50-foot lengths, and comes coupled ready for use. We will cut any of these hose in 25-foot lengths at an additional cost of 25c for couplings. We will cut  $\frac{1}{2}$ -inch Pomona and Monarch Spray Hose in any length desired, at an extra cost of 65c for spray couplings in less than 50-foot lengths.

**MONARCH SPRAY HOSE**—The Monarch is absolutely the best hose we can buy and we recommend it to orchard men.

**SPECIAL**— $\frac{3}{8}$ -inch. **Per ft 20c**

**POMONA SPRAY HOSE**—Pomona has stood the test of time and hard usage, and has always proved good. **Price  $\frac{1}{2}$ -in per ft 17 $\frac{1}{2}$ c**

**SUCTION HOSE**—

**Per ft  $\frac{3}{4}$ -in 27c—1-in 30c—1 $\frac{1}{4}$ -in 35c**

**CORRUGATED GARDEN HOSE**—A new process, corrugated rubber hose, that will not kink or break. Especially recommended for florists and gardeners. **Price per ft  $\frac{3}{4}$ -in 22c**

**ST. HELEN'S GARDEN HOSE**—Where a hose of medium price is wanted it will give excellent satisfaction. **Price  $\frac{1}{2}$ -in per ft 12 $\frac{1}{2}$ c**

### SPRAYOMETER For Testing Lime-Sulphur

Registers from 0 to 35 Baume scale, and 1000 to 1300 specific gravity. Weight  $\frac{1}{2}$  lb.

**Price each 1.25**

**Sprayometer Set** consisting of one 12-inch plain Glass Cylinder, with full instructions. Per Set—Weight 2 lbs. **Price \$1.50**

## SPRAY CALENDAR—WHEN TO SPRAY, WHAT TO USE

Insect or Disease	Plant Attacked	What to Spray With	First Spraying
Codling Moth.....	Apple, Pear.....	Arsenate of Lead.....	Just before calyx cups close
San Jose Scale.....		Scalecide, Standard Sulphur Lime Solution.....	When leaves are off the tree
Oyster Shell Bark Louse	Apple, mainly.....	Standard Sulphur-Lime Solution.....	When leaves are off the tree
Peach Moth or Twig Borer	Peach.....	Scalecide, 1 part to 20 parts water.....	When the insects appear
Woolly Aphis.....	Apple.....	Scalecide, 1 part to 40 parts water.....	When the insects appear
Aphis.....	Roses and plants.....	Aphicide, Nicoticide.....	Just as soon as the insects appear
Cabbage Worm.....	Cabbage.....	Bug Death (non-poisonous).....	Before the worms eat into the cabbage
Cabbage Aphis.....	Cabbage.....	Scalecide, 1 part to 40 parts water.....	When the insects appear
Slug.....	Pear, Cherry, Peas.....	Slug Shot or Bug Death.....	When the insects appear
Thrips.....	Roses.....	Thrip Juice, or Aphicide.....	When the insects appear
Cottony Scale.....	Pear, Currant.....	Scalecide, 1 part to 40 parts water.....	When the insects become cottony (May)
Scab.....	Apple, Pear.....	Bordeaux.....	Just before blossoms open
Blackspot Canker.....	Apple.....	Bordeaux, double strength.....	Immediately after leaves fall
Leaf Curl.....	Peach.....	Standard Sulphur-Lime Solution.....	Before buds burst
Mildew.....	Gooseberry.....	Potassium Sulphide, 1 oz. to 2 gallons water.....	Just as buds burst

**Gould Spray Pumps** will give and maintain the necessary pressure to spray right. They are built for lasting service. See page 96

**SPRAYING to be effective MUST BE WELL DONE—**

“How to Spray—When to Spray—What Sprayer to Use” is a valuable and interesting book that tells all about sprays and sprayers. We will mail this book free on request.



# SPRAYS, INSECTICIDES

**NOTE**—Poisonous Sprays marked ★ cannot be mailed.

## ★“CORONA” Arsenate of Lead—DRY POWDERED

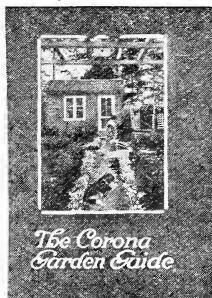
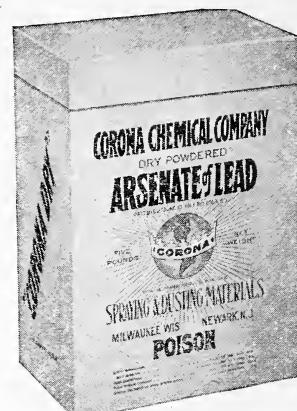
Contains only Arsenic and Lead Oxides. No Fillers

MIXES QUICKLY AND EASILY. STAYS MIXED LONGER  
AND STICKS better to leaves, branches and fruit  
than ANY OTHER Arsenate.

“CORONA” Dry Powdered Arsenate is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength—carries the highest possible percentage of arsenic oxide, 33%—is always uniform and requires only 1 pound to 50 gallons of water. Efficient, economical and convenient. Highest percentage of killing power.

Prices  $\frac{1}{2}$  lb 35c—1 lb 55c—5 lbs \$2.50—10 lbs \$4.50—25 lbs \$8.75—50 lbs \$16.50—100 lbs \$31.50—200 lbs \$60.00.

**Caution Against Spraying When Trees are in Full Bloom**—Spraying when trees are in bloom may destroy bees and other insects necessary to pollinate and these natural agents should not be interfered with as their work of transferring the pollen insures bountiful crops and shapely fruit.



**G**THE CORONA GARDEN GUIDE is a complete authoritative guide and reference for practical day by day, month by month growing of gardens, large and small, gives complete and dependable information about vegetables, berries, fruits, lawns, decorative shrubs, vines, flowering plants, etc.

We must not forget what America's Gardens must do to help feed a famished World and this splendid garden book which has been prepared at great expense by the Corona Chemical Company, is their contribution to help you do your part.

This book is too valuable for free distribution, but will be sent to any address postpaid for ten cents—or FREE with 5 pounds of “Corona.”

“CORONA” DRY used as a dust spray is a safe, inexpensive, easily applied and efficient remedy for all chewing garden pests—and for use on fruit trees, berry bushes and plants—that will insure perfect fruit and clean vegetables.

The CORONA Hand Duster is specially made for doing rapid and effective work over large areas of trees, vines, bushes and plants; but for small yards or gardens with no trees, a less expensive duster or powder gun will do the work. (See page 98).

## CORONA SULPHUR—For use with Corona Arsenate

CORONA DUSTING SULPHUR is a highly refined pure sulphur reduced to an impalpable powder specially for dusting purposes. The use of this finely powdered sulphur in the summer season for fungus diseases of fruit and vegetables is equally as effective as Lime-Sulphur; is more easily applied and there are no harmful results as it is a pure, non-poisonous sulphur.

Price  $\frac{1}{2}$  lb 10c—1 lb 18c—5 lbs 75c—10 lbs \$1.20—100 lbs \$10.00

CORONA DRY AND CORONA DUSTING SULPHUR—Mixed in equal parts by measure, is a complete and satisfactory summer dust spray for insect pests and fungus diseases; more easily, quickly and effectively applied than other sprays, and is much more economical.

“Garden Pests and their Control” and full information about “CORONA” mailed on request

## Miscellaneous Sprays and Washes

\*NICOTICIDE—The best fumigant and spray for greenhouse work. Kills, aphid, red spider, mealy bug, thrip, etc.

1 oz bottle 25c—2 oz bottle 50c—Pint can \$2.75—qt \$5.00— $\frac{1}{2}$  gal \$8.75—gal \$16.50  
SULPHUR, Powder. Lb 5c—100 lbs \$3.60  
TOBACCO DUST.

Lb 15c—10 lbs \$1.00—100 lbs \$7.50

CARBOLINEUM—C. A. Wood Preserver—

For preserving any kind of timber above or below ground.

Qt can 40c—wt 4 lbs—gal \$1.50—5 gals \$6.00

BLUESTONE—(Vitriol).

Lb 20c—per 100 lbs market price

\*PARIS GREEN—(Lion Brand)—The standard of purity. Guaranteed superior to other makes.

Price  $\frac{1}{4}$  lb 25c— $\frac{1}{2}$  lb 40c—1b 75c

FISH OIL SOAP—For aphid, plant lice, etc.

Per bar 25c—100 lbs bulk \$12.50

KEROSENE EMULSION—An excellent spray for woolly aphid and clover mite.

Qt 75c—wt 3 lbs

\*KNOXWEED—A single application of Knoxweed kills Plantain, Thistle or any Noxious Weed—Top and Root.

Price Dropper can 50c— $\frac{1}{2}$  gal \$1.50—gal \$2.50

# Sprays, Spray Material, Washes (Continued)

**Poisonous Sprays Marked ★ Cannot be Mailed**



## VEGETABLE SPRAY

For destroying and preventing maggots, grubs and worms that infest turnips, radishes, beets, rutabagas, cabbage and cauliflower, etc., also recommended for combating crown borers in strawberries.

Pints 50c—Qts 75c— $\frac{1}{2}$  gals \$1.25—gals \$2.00

## FOR CABBAGE MAGGOT

For destroying and preventing maggots, grubs and worms that infest turnips, radishes, beets, rutabagas, cabbage and cauliflower, etc., also recommended for combating crown borers in strawberries.

Pints 50c—Qts 75c— $\frac{1}{2}$  gals \$1.25—gals \$2.00

## ★CUT WORM FOOD

### Use a Teaspoonful to a Plant or Hill

Cut worms are very fond of this special preparation which is eagerly eaten by them in preference to the plants. Effective on Melons, Cucumbers, Cabbage, Cauliflower, Squash, Tomato and Flowering Plants.

Price 1-lb pkg 25c

## ★FUNGI-BORDO

### Standard Dry Bordeaux Mixture

Dry Powdered Fungi-Bordo when mixed with cold water in the proportion of nine pounds to 50 gallons, gives a standard Bordeaux Mixture, 4-4-50. Keep in a tightly closed package.

Price, 1 lb 50c—5 lbs \$2.00—10 lbs \$3.50—25-lb drum \$8.00.

## ★INSECTO—Dry Bordeaux and Lead

A combination of Bordeaux Mixture and Arsenate of Lead, especially for fruit trees, potatoes and garden crops. Use 7 to 9 lbs. to 50 gallons of water. Price, 1lb 65c—5 lbs \$2.75.

## DIAMOND LIME AND SULPHUR SOLUTION

**Diamond Lime and Sulphur Solution** is prepared in pressure tanks by steam, and is always uniform and of the highest efficiency tests 30 Baume Scale, is made of the purest and best quality of Sublimed Sulphur and of Lime; free from sediment.

Price 1 qt 30c—1 gal 75c—5 gals \$2.40—10 gals \$4.50—50-gal bbl \$12.00.

## SCALECIDE

The best miscible oil spray for San Jose scale and soft-bodied, sucking insects. Also contains a powerful fungicide, which will control fungus diseases that are controllable in the dormant season.

Use one gallon of "Scalecide" to fifteen or twenty gallons of water. No crude or injurious oil in "Scalecide," but the soluble sulphur is retained. Price per qt 75c—gal \$2.00—5 gals \$9.00—10 gals \$17.00—50-gal bbl \$45.00.

## DIAMOND SPRA-OIL

The Hood River miscible oil spray, used by the big orchards for leaf roller.

As a WINTER SPRAY—For San Jose Scale, Pear Scylla, Leaf Roller, Woolly Aphid, use one gallon of Spra-Oil to 15 or 16 gallons of water.

As a SUMMER SPRAY—Very efficient for young San Jose Scale and certain Aphids, diluted with 50 to 100 gallons of water to one gallon of Spra-Oil.

Price qt 40c—gal 95c—5 gals \$3.50—10 gals \$6.50—bbl \$21.00.

**BUG DEATH**—A non-poisonous insect-killing powder that is in high favor among gardeners for cabbage, tomato and cucumber bugs, etc. Use 12 lbs. per acre. Per lb 25c—5 lbs \$1.00.

BUHACH—Oz 15c— $\frac{1}{4}$  lb 40c—1 lb \$1.00



REG. U. S. PAT. OFF.

**HAMMOND'S SLUG SHOT**—For destroying slugs, cabbage and turnip flea, currant worms, etc. Per lb 15c—5-lb pkg 60c

**HAMMOND'S GRAPE DUST**—To prevent mildew on roses, grapes, and gooseberries.

Per lb 15c—5-lb pkg 65c

**BLUE LABEL SLUG DESTROYER**—Kills slugs and keeps them away from young plants. Not harmful to delicate foliage. For Sweet Peas, Pansies and all garden truck sprinkle lightly on and around the plant.

Price 25c

## DRY LIME-SULFUR

Controls all scale and fungus diseases for which Lime-Sulphur Solution is recommended. More convenient to handle and saves freight on water. Put up in air-tight packages which should be used when opened. For Winter spray use ten to fourteen pounds to 50 gallons of water. For Summer in combination with Arsenate of Lead use 2 to 3 pounds to 50 gallons of water.

Price, 1 lb 30c—5 lbs \$1.25—10 lbs \$2.25—25 lbs \$4.50—100 lbs \$15.00.

## TREE TANGLEFOOT

For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long. Price 1 lb 50c—3 lbs \$1.40—10 lbs \$4.50—20 lbs \$8.75.

## Portland Seed Co.'s APHISCIDE

### Our Best Summer Spray for Roses

A clean, efficient spray for aphid, thrip, and kindred insects on plants of any kind. Specially fine for house plants, as it has no offensive odor.

Price qt 35c—gal 65c

## ★FORMALDEHYDE

A preventive for smut in grain, scab and fungus diseases of potatoes. Prices: pint 65c—qt \$1.00—gal \$3.80. Cannot be mailed.

## ★"BLACK LEAF 40"

40% Nicotine

Destroys Aphid, Thrips, Leaf Hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage. Combines readily with other sprays.

1 oz. 6 gallons spray .. \$0.25

$\frac{1}{2}$  lb. 40 to 120 gals. spray ..... .75

2 lb. 160 to 500 gals. spray ..... 2.50

10 lb. 800 to 2500 gals. spray ..

\$10.75



# The National CREAM SEPARATOR

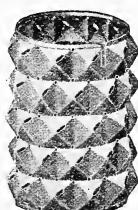
**WHEN YOU BUY A SEPARATOR** you want the one that skims the closest, summer or winter; that will handle milk from "stripper" cows; that will produce cream of any desired density.

A durable machine that will give everlasting satisfaction and service, at the minimum cost of up-keep; a separator that is mechanically perfect, having the fewest parts, the greatest capacity for its size, the quickest, cleanest and easiest running.

**The National** combines all the above and for 24 years has stood the test of time, maintaining its position against all competitors—and many of those first National Separators are in daily use after 20 years of service.



Bowl Shell



The "Vortespoon"  
One solid piece of  
nickel steel. Does  
all the skimming.



Feed Tube



Inner Top Cone



National  
No. 24.  
Capacity  
One  
Gallon  
per  
minute

Six to  
Fourteen  
Cows

We offer  
the  
National  
in three  
sizes

## CLEANED IN 3 MINUTES

The superiority of the "National" Cream Separator is due to the marvelous one-piece skimming device, the famous "Vortespoon." Just one cylinder shaped piece of the finest nickel

steel, extremely light in weight and large enough for any woman to put her arm through.

A child can clean it in three minutes without risk of breaking or harming it. Just wipe off with a wet rag inside and out, and rinse in hot water and the job is done.

**Capacity**—The National is not over-rated but will make perfect separation of the amount of milk claimed under ordinary conditions and have ample reserve capacity. The separator that has to be crowded to handle its advertised capacity will not skim perfectly.

**It should be especially noted** that no mechanical contrivances are required between the "Vortespoon" and the feed tube; the globules of butter fat are therefore allowed to remain in a whole condition, the highest grade from which the finest butter is made, commanding the highest price.

**The National Bowl flushes clean** after using; not a particle of cream is lost and it is the simplest and easiest bowl to handle and clean.

**The Upper Bearing** is of phosphor bronze and flexible, maintaining its equilibrium without the slightest vibration; the lower bearing rests on a single cushioned ball bearing.

**Driving mechanism** of finest steel, with worm wheel of phosphor bronze; all parts machined to one-thousandth part of an inch.

**Special side ball bearings** of exclusive design help to make the National the easiest running Separator. The gear shield protects the gears. The oiling system insures an ample supply of fresh oil always in view and under control of the operator.

**Power attachments** can be furnished for all sizes of National Separators; they are easily and quickly adjusted to fit any engine or shaft.

**National Catalog** 40 pages illustrated, gives complete and interesting facts about National Separators. We will gladly mail you a copy on request

National	Separators are made in the following sizes, and all prices are F. O. B. Portland.	Hourly Capacity	Cows	Shipping Weight	Price
		No. 24 500 lbs.	6 to 14	167 lbs.	\$70.00
		No. 26 600 lbs.	12 to 30	170 lbs.	80.00

**NATIONAL SEPARATORS** are fully guaranteed to be as represented and as perfect as human skill can make them. All parts showing defective material or workmanship will be cheerfully replaced. Read the Guarantee in the special NATIONAL Catalog.

# DAIRY SUPPLIES



**KOW-KURE** Makes Poor Cows Good—Good Cows Better, and Makes More Money for Cow Owners.

## "THE HOME COW DOCTOR"

A handbook for cow owners, describing diseases that affect a cow's productivity and telling how to prevent and cure them in a single cow or a whole herd. **Free on request.**

**KOW KURE** is different from anything ever discovered for cow troubles. It is the only cow medicine that is strictly for cows only. It is not a stock food, but a specific remedy especially for cow diseases, such as Barrenness, Scours, Milk Fever, Caked Udder, Bloating, Red Water, Swelling of Bag, etc. It prevents abortion and removes retained after-birth. It tones up the system, renews vitality, restores appetite to cows that are "off feed," and keeps them healthy. Makes poor cows good, good cows better, and makes more money for cow owners. It increases the milk flow, and enables the cows to produce strong, vigorous calves. It's the dairyman's gold mine, and a sure profit-payer.

Price 60c, cans wt.  $1\frac{3}{4}$  lbs—\$1.20, cans wt.  $3\frac{1}{2}$  lbs

## AMERICAN DAIRY ASSOCIATION REMEDIES

**BAG BALM**—A soothing, penetrating ointment for all affections of the bag.

60c packages—wt  $\frac{1}{2}$  lb.

**GRANGE GARGET CURE**—An unsurpassed and positive cure.

60c cans—wt 2 lbs.

Increases Milk Production  
20 Per Cent

**HORSE COMFORT**—For wire cuts and all flesh wounds.

30c bottles wt 1 lb—60c bottles wt 2 lbs.

**AMERICAN HORSE TONIC**—A general improver for horses.

30c boxes wt 1 lb—60c boxes wt 2 lbs.

## SO-BOS-SO

Protects Stock From the Torture of Flies



YOUR cows will give more milk—your horse do more work on less feed if protected by So-Bos-So at a cost of less than  $\frac{1}{2}$  cent a head per day.

Horses hitched or harnessed will stand quietly or work in comfort if protected by So-Bos-So, and many run-aways will be avoided. So-Bos-So is a boon to blacksmiths.

So-Bos-So is easily and quickly applied with a hand sprayer, cloth or sponge and is the only really efficient "fly bouncer" that we have ever seen.

*Be sure to look for the trade-mark as there are many preparations offered that will prove disappointing.*

Price So-Bos-So is sold in one gallon sealed tins only, weight 10 lbs. at \$1.35.



## "MEDICO" Tonic and Worm Destroyer

80% of all stock losses are due to worms—only healthy animals respond to feeding; wormy stock will not thrive—your money is fattenning worms.

**MEDICO DESTROYS** the dreaded intestine and stomach worms and expels

them from the system, tones up the digestive tract and keeps them away. Horses, cattle, sheep, hogs, all must have salt, a package of Medico mixed with 70 pounds of salt makes the most perfect medicated salt tonic and worm destroyer possible to obtain, and at a fraction of the cost of such preparations. Keep this salt before your stock, they will use the proper amount to keep them healthy.

**PRICE**, 5-lb package. (Mailing wt. 6 lbs.) ..... \$1.50.



5 lb. pkgs. to 70 lbs. salt

*Be sure this Trade Mark is on the package*



**HAND SPRAYERS, POWDER BLOWERS and SPRINKLERS**—Page 98



## International Stock and Poultry Foods, Remedies, Etc.

Every package of "International" is guaranteed to fulfill every claim made for it, or your money back for the asking. We sell "International" on its merits. You are the judge. Full directions on each package.

### FOR POULTRY

International Poultry Food—Pkgs; 25c wt 2 lbs—50c wt 4 lbs—\$1.00 wt 7 lbs.  
 International Louse Killer—Weight 2 lbs pkg 25c.  
 International Lice Paint—35c cans wt 3 lbs—60c cans wt 5 lbs.  
 International Cresul—Wt packed 1 lb— $\frac{1}{2}$ -pint can 25c.  
 International Aseptin—Per box 25c postpd.  
 International Rheumatism Oil—Per bottle 25c.  
 International Sudal—Box 25c postpaid.  
 International Cholera Cure—Per bottle 50c.  
 International Bowel Trouble Remedy—Per box 50c postpaid.

### FOR STOCK

International Stock Food—Pkg 25c wt 2 lbs—50c wt 4 lbs—7-lb pkg \$1.00.

International Heave Cure—Weight 1 $\frac{1}{4}$  lbs Pkg 50c.  
 International Worm Powder—Pkg 50c wt 1 $\frac{1}{4}$  lbs.  
 International Phenol-Chloro—25c wt 1 lb—50c wt 2 lbs—\$1.00 cans wt 3 lbs.  
 International Harness Dressing—Price 25c weight 2 lbs—large can 50c weight 3 lbs—5 lbs \$1.00—10 lbs \$2.00.  
 International Honey Tar Foot Remedy—50c can wt 2 lbs—\$1.00 cans wt 3 lbs.  
 International Colic Cure—50c wt 2 lbs—\$1.00 bottles wt 3 lbs.  
 International Silver Pine Oil—25c 1 lb—50c wt 2 lbs—\$1.00 bottles wt 3 lbs.  
 International Distemper Remedy—Pkg 50c wt 1 $\frac{1}{4}$  lbs.  
 International Hoof Ointment—Wt 1 $\frac{1}{2}$  lbs \$1.00.  
 International Dip—1 gal can \$1.50.  
 International Compound Absorbent—\$2.00

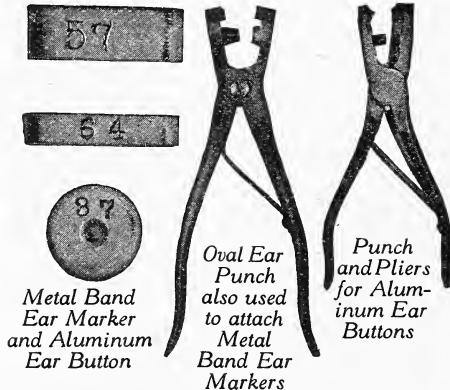
 "KOW KURE" Makes poor cows good, good cows better and makes more money for cow owners. SEE PAGE 103.

## Markers for Cattle, Sheep and Hogs

Metal Ear Labels and Ideal Ear Buttons are satisfactory and easily applied marks of identification that are indispensable to breeders and stockmen.

Your name and address on one side, numbers on the other.

OVAL EAR PUNCHES—Cattle size; wt. 1 $\frac{1}{4}$  lb. each, \$1.75; Sheep and Hog size \$1.40. Postage 10c each.



Not more than ten large letters can be used on the hog and sheep size; 15 large letters on cattle size or 22 small ones.

Prices	Two sizes	Sheep and Hog	Cattle
100 with name and number.....		\$1.75	\$2.25
50 with name and number.....	1.25	1.50	
25 with name and number.....	.85	.90	
100 with name only, or No. only....	1.25	1.75	
50 with name only, or No. only....	1.00	1.25	
25 with name only, or No. only....	.75	.85	

Weight for mailing, Cattle size, 2 $\frac{1}{2}$  lbs. per 100; sheep size, 1 lb. per 100.

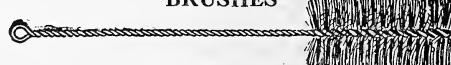
### IDEAL EAR BUTTONS Pure-Aluminum Hardened

Medium size, suits all animals, clinches tight cannot come out; double strength. Name and address on top side; number on bottom, or number and name can both appear on one side if not more than 18 letters and figures; if more than 18, both sides can be used to the limit of 30 letters and figures. Easily attached with special punch and pliers.

PRICES		
25, Wt. 3 oz.....	\$1.35	500, Wt. 4 lbs. \$16.50
50, Wt. $\frac{1}{4}$ lb....	2.00	1000, Wt. 6 lbs. 30.00
100, Wt. $\frac{3}{4}$ lb....	3.75	
Punch and Pliers, Wt. 1 lb.....		\$1.50

National Bowl Brush.....	Each 25c
National Spout Brush.....	Each 20c
Sharples Flexible Tube Brush.....	Each 10c
Sharples Spout Brush.....	Each 20c
Sharples Bowl Brush.....	Each 50c

### BRUSHES



 The Exclusive Original Features of the National Separator are the inventions and property of the National Separator Company and cannot be duplicated or used by any other separator. They are fully guaranteed and are as perfect as human skill can make them. See Page 102.

*Blatchford's*

## CALF MEAL PIG MEAL LAMB MEAL

The Blatchford Motto  
FOR OVER 50 YEARS  
"QUALITY is the Best Advertisement"

### BLATCHFORD'S CALF MEAL

*The Complete Milk-Equal*



"Good to the last drop"

Sold in 100, 50 and 25-pound bags

is in reality a substitute for milk—and should not be considered as an ordinary "feed" or "meal."

It contains all the elements of milk—a "baby food" for calves.

It is absolutely the *only* milk-substitute that contains in proper proportion the elements necessary for rapid and healthy growth, and the only calf meal that is thoroughly cooked and prepared for easy digestion.

100 pounds makes 100 gallons of Complete Milk-Equal

### From Sow to Pasture

Wean your little pigs easily, safely and cheaply on



In 100, 50 and 25-pound bags

### Blatchford's Pig Meal

From Pighood to Porkage it gives big bone and solid flesh. Prevents loss of growth and vitality during the critical weaning period, and always **makes the runts catch up.**

### Blatchford's Lamb Meal

*The Complete Substitute for the ewe's milk  
Saves your lambs, your milk,  
your money*

It is a sweet, nutritious meal for growing and weaning motherless or poorly nourished goat-kids and lambs. Every pound of it, when mixed with water or skim-milk, makes a gallon of rich substitute for the mother's milk. It is easily assimilated even by the weakest animals and is an excellent food for nursing ewes.



In 100, 50 and 25-pound bags

**STOPS THE LOSS AT WEANING TIME**

### Blatchford's Milk Mash

Grows—Matures—Fattens

Presents bowel trouble, leg weakness and carries them safely through the dangerous first three months.

Sold in 100 and 25-pound bags

### Blatchford's "Fill the Basket" Egg Mash

Fed to your pullets when three months old will make early layers and keep them in perfect health. Does not force or fatten. Feed it to all your hens.

Sold in 100 and 25-pound bags

### PRICES

CALF MEAL—PIG MEAL—LAMB MEAL—MILK MASH—EGG MASH—Same Price.

25-lb sacks \$2.10—50-lb sacks \$3.35—100-lb sacks \$6.30

F. O. B. Portland—Subject to Market Changes



# "DIAMOND QUALITY" BEE SUPPLIES FOR WESTERN BEE KEEPERS

WE ARE THE PIONEERS in the Bee Supply business in the Northwest, are thoroughly familiar with local conditions and requirements, and if you are new to the business or the country we can be of much help in saving you any unnecessary outlay, work or loss of time and can start you on the right road to success.

STOCKS ARE LARGE and complete and we can fill any size order on short notice and will give the small order just as careful attention as the larger one.

THE A. I. ROOT CO.'S HIVES AND SUPPLIES well-known the world over as the standard of excellence are always on hand for prompt delivery at lower prices than you can purchase them for direct, as we are agents for the Root Company and give our customers the advantage of car rates.

WESTERN PINE AND CEDAR HIVES made to our order in standard sizes and designs; of first-class material and workmanship, are very popular with local bee keepers. Our Western lumber is satisfactory and lasting and we recommend them as being economical and serviceable.

## THE MODERN BEE HIVE For the Production of Comb and Extracted Honey

THE illustration shows the different parts that go to make up the standard dove-tailed hive. This term refers to the construction, the bodies and supers being dove-tailed at the corners. The lower compartment is known as the hive body or brood chamber. This stands on a bottom board which fits close to the body but is not attached thereto. The hive stand here shown is a separate part and may be ordered as an extra.

The brood chamber is the home and workshop of the bees. Contains eight or ten movable frames upon which the bees build the comb and cells for storing their stock of honey to feed upon. Also certain portions of these are used by the queen for depositing her eggs. Hives are referred to as 8 and 10 frame according to the number of frames.

A thin movable partition is sometimes used to cut off the empty frames when the colony is small. This is known as a division board. There is one in each hive body.

When the colony fills the hive body they begin to store surplus honey in the super. This is the part that sets above the hive body and holds the section or little honey boxes. These are held in position by section holders, each of which supports a row of four sections; six rows in the 8-frame; seven rows in the 10-frame.

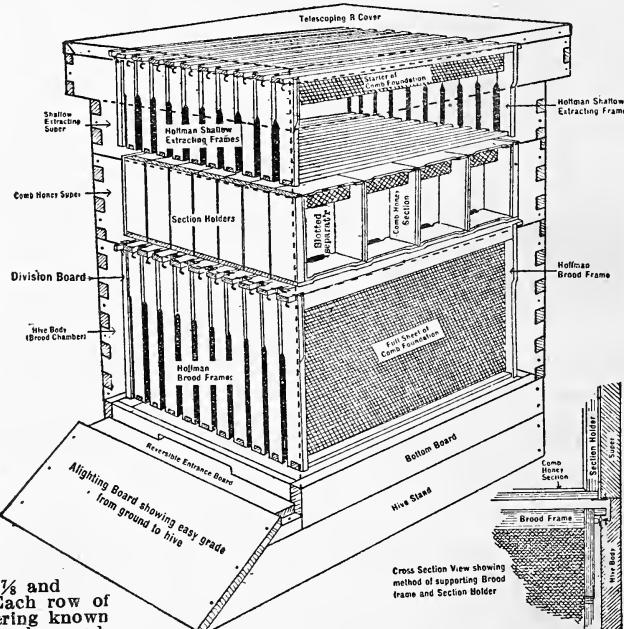
The standard section is  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$  and has a slotted bee way. (See cut.) Each row of sections is separated by a thin veneering known as a separator. (A fence separator is also used, there being many styles of super furniture.) A little board the size of the super goes along side of the separator to take the pressure of the super springs that are used to hold the sections and parts firmly in position.

On top of the super is the hive cover of which there are various styles, the Excelsior being the most popular in mild climates.

The extracting super is not commonly used on top of the comb honey super but is placed here for illustration. It properly belongs on top of the brood chamber.

If you wish to produce extracted honey you place a super fitted with shallow frames over the brood chamber and bees will store their surplus honey on these frames. Full hive bodies are often used for the same purpose.

The standard 8-frame hive body is  $9\frac{1}{4}$  inches deep by  $18\frac{1}{4}$  inches long by  $12\frac{1}{4}$  inches wide. The 10-frame hive is the same length and depth and  $14\frac{1}{4}$  inches wide. Supers are the same width and length as the bodies, but vary in depth according to furniture.



## The Necessity for Bees in Orchards

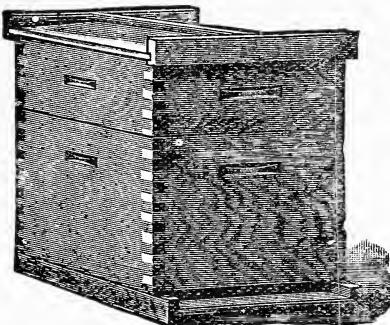
A most interesting series of experiments on the Pollination of the Apple, conducted by the Oregon Agricultural College, proves the total inadequacy of all pollinating agents, with the single exception of Bees. The wind, which at first thought would seem dependable, is a total failure outside of the radius of a few feet, even under most favorable conditions, and very uncertain at any distance. Some few varieties are self-fertilizing, but these are vastly improved by crossing the pollen with other sorts, and the busy honey bee seems to be our sole reliance for effective work. Fortunately bees are easily obtained, are very little trouble, and an orchard and apiary make an ideal combination from a business standpoint. This subject is well worthy the careful investigation of all orchardists, and we would be pleased to hear from those interested.

# BEE HIVES AND SUPPLIES

## P. S. Co.'s Dovetailed Western Cedar Hives

These cedar hives are made especially for our Western trade. In construction they are the same as our pine hives, the only difference being that they are made of a superior quality of cedar, the best and most lasting wood for our Western climate. The sections and separators used in the supers are the regular No. 1 Eastern stock. Price and quality considered, these hives are splendid bargains.

PRICES	Each Nailed	K. D. 5	Weight 5
Fig. 1-8.....	\$3.10	\$13.25	140
Fig. 2-8.....	2.75	11.50	125
Fig. 1-10.....	3.55	15.25	135
Fig. 2-10.....	3.15	13.25	126
Fig. 10-8.....	3.25	14.00	150



For description of numbers, see those given for our pine hives at bottom of page.

## P. S. Co.'s Dovetailed Western Pine Hives

This is our lowest priced hive and is the best value we can offer. It is standard size and well and carefully made of first-class lumber. The inside fixtures are just the same as in our regular pine hives and the sections supplied are of the best grade of white Eastern basswood. For general description of the different numbers see corresponding numbers and descriptions under Eastern Pine Hives below.

Fig. 1-8.....	Each Nailed	K. D. 5	Weight 5	Fig. 2-8.....	Each Nailed	K. D. 5	Weight 5
Fig. 1-8, less Super....	1.90	8.25	103	Fig 2-8, less Super....	1.80	7.75	100

## P. S. Co.'s Dovetailed Eastern Pine Hives

This hive is similar to the Root Dovetailed Hive except that it is made from a little different kind of Eastern Pine, but is first-class.

### Descriptions and Prices Order by Number

**Fig. 1. DOVETAILED HIVE**—(Complete with 1 super) consists of 1 bottom board, 1 body, 1 super, 1 cover, 8 Hoffman brood frames, 1 division board, 2 tightening springs for super, 6 section holders, 6 slotted separators, 24 sections and foundation starters for frames and sections and nails.

Nailed \$3.60 each—per 5 K. D. \$15.75

**Fig. 2. DOVETAILED HIVE** is the same as No. 1, less sections and foundation starters.

Nailed \$3.25 each—per 5 K. D. \$14.25

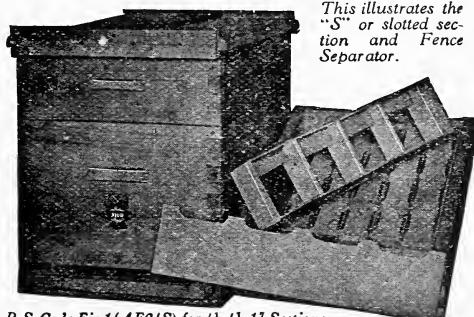
**Fig. 3. DOVETAILED HIVE** is the same as No. 1, except it has two supers instead of one.

Nailed \$5.00 each—per 5 K. D. \$21.90

**Fig. 4. DOVETAILED HIVE** is the same as No. 3 less sections and foundation starters.

Nailed \$4.40 each—per 5 K. D. \$19.25

WE ADVISE THE USE OF THE ABOVE COMBINATIONS, BUT IF YOU WANT SECTIONS OR SEPARATORS OF OTHER DESIGNS, MAKE NOTE IN YOUR ORDER



This illustrates the "S" or slotted section and Fence Separator.

P. S. Co.'s Fig 1 (AE64S) for 4 1/4-1 1/2 Sections

**Fig. 10. DOVETAILED HIVE** (Complete two-story for extracting), consists of one bottom board, 2 bodies, 1 cover, 16 Hoffman brood frames, 3 division boards and nails.

Nailed \$3.60 each—per 5 K. D. \$16.20

**Our Special Catalog of Bee Supplies** lists everything necessary for the successful handling of bees and the production of honey—tells how to care for bees and gives valuable information on pollination, of special interest to fruit growers. This catalog is ready in February and is mailed free on request

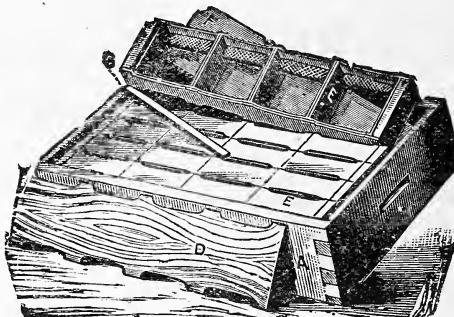


### P. S. CO.'S DOVETAILED SUPERS

Unless otherwise ordered we always send S super for the regular stock  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{7}{8}$  sections and wood separators. (See cut.)

Nailed P'ck'din Wt.  
or K.D. flat 5 5

Fig. 1-8 Pine.....	\$1.40	\$6.15	40
Fig. 1-8 Western Pine.....	1.15	5.00	40
Fig. 1-8 Cedar.....	1.25	5.50	35
Fig. 2-8 Pine.....	1.15	4.90	35
Fig. 2-8 Western Pine.....	.90	3.75	35
Fig. 2-8 Cedar.....	1.00	4.25	30
Fig. 8-8 Extracting Super.....	1.10	5.00	40
Fig. 0-8 Empty Wes'n Pine.....	.50	2.15	20
Fig. 0-8 Empty Cedar.....	.55	2.40	20



Super, Designated as 4 or Fig. 1-S—Complete.

For description of Super Number See Corresponding Number Describing Hives.

## A. I. Root Company's Hive Combinations and How to Understand Them

To accommodate various localities and bee keepers of different preferences, we have a large number of different combinations, and each combination is indicated by a series of letters and figures. A glance at the following table showing the meaning of each letter or figure in alphabetical and numerical order will make all plain.

- A. Danzenbaker bottom.
- E. Excelsior cover.
- G. The gable cover.
- I. Super for Ideal plain sections,  $3\frac{5}{8} \times 5$ .
- M. Super  $4 \times 5$  plain sections for the Danz. hive.
- P. Super equipped for plain  $4\frac{1}{4}$  sections.
- Rc. Metal roof, double cover.
- S. Super for  $4\frac{1}{4}$  beeway sections.
- 2. Super with section holders, separators of fences, but no sections or foundation.
- 4. Super with section holders, separators or fences, sections and foundation starters.
- 5. Hive body or brood chamber, with frames and division board but no starters.
- 6. Hive body or brood chamber with frames, division board, and foundation starters.

7. Complete Hive Body with full sheets of foundation, without cover or bottom.

8. Indicates hive with 8 brood frames.

10. Indicates hive with 10 brood frames.

When the figures are double, it indicates that two of the articles are called for. For instance, 2-2P means two supers with plain section holders and fences.

If you desire a Danz. bottom-board, Excelsior cover, 8-frame dovetailed hive with frames, foundation and super with section holders,  $4\frac{1}{4}$  plain sections, fences and foundations, the number would stand thus: AE64P-8.

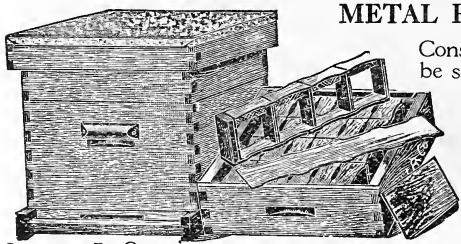
If you wish two supers, in place of the one you would add another figure 4, and the whole would read for 8-frame hive; or if you wanted this same combination without foundation or sections, the designation would be AE522P-8

### METAL ROOFED DOUBLE COVER Rc

Consists of a  $\frac{3}{8}$  inch super cover, tin-bound, that should be supported a full bee-space above the sections. The outside part of the cover is made of a solid sheet of lead coated roofing tin folded at the corners around a frame that telescopes over the top of the hive making a weather proof cover that will not blow off, warp or leak. This top is the R part of combination cover listed and sold complete as Rc.

Add 50c per hive when Rc cover is ordered.

For Price of Rc Covers see page 109.



Showing Rc Cover

## Help Your Bees AND INCREASE YOUR PROFITS BY GROWING CROPS THAT ARE HONEY PRODUCERS

For the June Honey Flow, alsike and white clover. From July to October, sweet clover. From August to October, buckwheat. These are profitable crops in most sections and make fine bee pasture.

Sweet clover makes fine honey and can be grown on poor dry soil where other crops fail—scatter it on waste land, along roadways and fences. It will bloom the second year but reseeds itself and once established blooms heavily and through a long season.

SEND US YOUR BEESWAX. WE WILL TAKE IT IN TRADE, OR PAY YOU CASH

# Dovetailed Hives and Fixtures (Continued)

Root's Dovetailed Pine Hives—Different Combinations	Each Nailed	K. D. in Flat	Wgt. of 5
<b>HIVES:</b>			
Fig. 1 (A-E or A-G, 6-4, S or P) 8 frame body and 1 super, all complete with starters .....	\$4.10	\$18.40	140
Fig. 1 (A-E or A-G, 6-4, S or P) 10 frame body and 1 super, all complete with starters .....	4.45	20.15	160
Fig. 2 (A-E or A-G, 5-2, S or P) 8 frame body and 1 super, all complete less section and starters .....	3.70	16.50	130
Fig. 2 (A-E or A-G, 5-2, S or P) 10 frame body and 1 super, all complete less sections and starters .....	4.00	18.00	150
(A-E or A-G, 6) 8 frame body only, with frames, division board and starters, cover and bottom board .....	2.65	12.50	100
(A-E or A-G, 6) 10 frame body only, with frames, division board and starters, cover and bottom board .....	2.85	13.50	100
(A-E or A-G, 5) 8 frame body only, with frames, division board and no starters, cover and bottom board .....	2.55	12.00	100
(A-E or A-G, 5) 10 frame body only, with frames, division board and no starters, cover and bottom board .....	2.80	13.25	100
<b>HIVE BOTTOM:</b>			
A-Danzenbaker bottom-8 .....	.60	2.65	20
<b>HIVE COVERS:</b>			
E-Excelsior or G-gable cover-8 .....	.70	3.15	20
Rc cover 8 fr .....	1.00	5.00	.....
Rc cover 10 fr .....	1.10	5.50	40
<b>HIVE BODIES</b> (Brood Chamber):			
5-Body-8, with frames and division board .....	1.60	7.25	65
6-Body-8, with frames, division board and starters .....	1.50	6.75	70
<b>SUPERs:</b>			
Fig. 1 (4 P, S or I) 8, all complete with starters and sections .....	1.45	6.25	40
Fig. 1 (4 P, S or I) 10, all complete with starters and sections .....	1.60	7.00	50
Fig. 2 (2 P, S or I) 8, all complete, less starters and sections .....	1.10	4.75	35
Fig. 2 (1 P, S or I) 10, all complete, less starters and sections .....	1.20	5.25	40
Fig. 0-8 Plain supers, with flat tin; empty .....	.70	3.25	20
<b>ANZENBAKER HIVES:</b>			
A E D, 6-4 M-10 .....	4.45	20.15	165
A E D, 5-2 M-10 .....	4.00	18.00	150
A E D, 5-10 .....	2.55	11.75	100
<b>SUPERs:</b>			
Danz. 4 M-10 super .....	1.60	7.00	60
Danz. 2 M-10 super .....	1.20	5.25	50

Note—D, Danzenbaker cover; M, Danzenbaker super.

## Hoffman Brood Frames

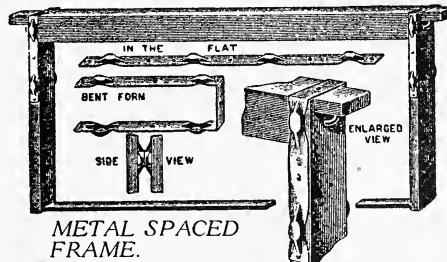
The Hoffman Improved Foundation Fastening Frames (see cut) are the latest, most satisfactory brood frames. The top bar is made with a beveled strip, which holds the foundation absolutely in place, perfectly straight and exactly in center of top bar. Any one can put foundation in these new frames very rapidly.

### PRICE OF HOFFMAN FRAMES

Wt. per 10 Per 10 Per 100

Improved F. F. Root's.	4½ lbs.	\$1.00	\$9.50
Western .....	4½ lbs.	50c	4.65
Half Hoffman .....	2½ lbs.	65c	6.25
Danz. Reversible .....	2½ lbs.	65c	6.25

The Half Hoffman Frame is used in the ideal super and for extracting only.



## New Metal Spaced Frame

Recommended where there is much propolis. Spacing is accurate and frames handle easily.

Price per 10, \$1.10—100, \$10.50. Wt. per 10, 5 lbs.

### METAL SPACERS ONLY

Per 100 Wt. 1¾ lbs. 90c

## Section Holders

Six section holders with separators, one follower and wedge are put in each super, and each section holder holds four one-pound honey boxes. The bottom strip is  $\frac{1}{8}$ -inch thick and is cut out to fit insets of sections.

Root's 1½x18½ inches slotted. Wt. 22 lbs. per 100. Each 6c—per 100 \$5.00

Western, 1½x18½ inches, slotted. Wt. 29 lbs. per 100. Each 4c—per 100 \$2.90

Bottoms only—1½ in. wide, slotted. Western.

Root's, 1½x17½ inches, plain. Wt. 15 lbs. per 100. Each 5c—per 100 \$4.50

Danzenbaker, reversible. Wt. 24 lbs. per 100. Each 6c—per 100 \$5.25

Wt. 11 lbs. per 100. Each 2c—per 100 \$1.50



## SECTION HONEY BOXES

Our No. 1 Sections are made of the choicest white basswood lumber, and are all perfect in finish and free from defects. They are not all snow-white, but vary from that to a light cream color. Choice honey shows off to best advantage in a section not too white, as it is the honey rather than the wood that the consumer looks at. Wt., 6 $\frac{1}{4}$  lbs. per 100

**Root's No. 1 best white per 100 \$1.15—per 500 \$5.25—per 1000 \$10.50.**

Portland Seed Co.'s No. 1 per 100 \$1.05—per 500 \$4.75—per 1000 \$9.50.

Order any of the following sizes wanted. We have 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ x1 $\frac{1}{8}$ , generally used and always sent unless otherwise ordered; 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ x7 to the foot; 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ x1 15-16; 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ x1 $\frac{3}{4}$ . The 4 $\frac{1}{4}$ x4 $\frac{1}{4}$ x1 $\frac{1}{8}$ , 3 $\frac{5}{8}$ x5x1 $\frac{1}{2}$ , and 4x5x1 $\frac{3}{8}$  plain sections, having no beeway, are 25c per 1000 less.

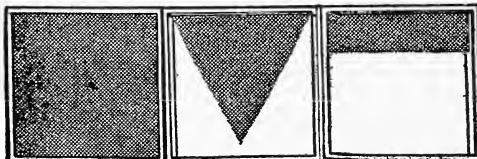
We pay highest market price for

## BEESWAX

Cash or Trade

Send Us All You Have

## COMB FOUNDATION



Full Sheet, Triangular and Quarter Sheet Method of Using Foundation

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help much more than it costs you, in getting straight, even combs. You can use a starter any width from one inch up.

Our foundation is made by the "Weed process," and is a very superior article. Packed in 1, 2, 3 and 5-lb. cardboard boxes in a case.

## PRICES OF COMB FOUNDATION

When you order, be sure to tell what grade you want, and give price.

No. In Lots of

GRADE	Size of	per	1	10
	Sheets	lb.	lb.	lbs.
Light Stand'd Brood	7 $\frac{3}{4}$ x16 $\frac{1}{8}$	7	\$0.95	\$0.90
Extra Light Brood	7 $\frac{3}{4}$ x16 $\frac{1}{8}$	9	.97	.92
Light Section	3 $\frac{7}{8}$ x15 $\frac{1}{2}$	28	1.00	.95
Extra Light Section	3 $\frac{7}{8}$ x15 $\frac{1}{2}$	30	1.03	.98

Write for lowest market prices on larger orders.

## SECTION PRESSES

## HUBBARD

This is one of the best machines for putting together one-piece sections. The ends are forced together by means of a toggle joint. It is made adjustable for sections of different sizes. Weight, 25 lbs.

Price \$3.25

## Different Styles of Sections.



Style 1 Beeway, commonly called closed-top.



Style 2 Beeway, open top and bottom. This style is sent when no other is specified.



Style 3 Beeway, open three sides.



Style 4 Beeway, open on all four sides.



Style 5 Plain, no beeways. Used with fences.



Style 6 M, 4x5x1 1/8 plain, no beeways.

For large quantities, other sizes, etc., write for special prices. If ordered by mail, allow 1c each for postage. Sample section, by mail, 1c each.

## SEPARATORS

One separator should always be placed between each section holder so that the bees will build the honey comb even in each section (see illustration of supers, page 134.)

**Slotted Wood Separators, 4 $\frac{1}{2}$ x18, Root's, Eastern. Wt. 8 lbs. per 100. Per 10, 25c—per 100, \$2.25.**

**Western (Veneer) 8 lbs. per C; per 100, 95c**

**Plain Separators. Weight 6 $\frac{1}{4}$  lbs. per 100  
Per 10, 20c—per 100, \$1.90**

**Fence Separators, P. or I., Weight 1 $\frac{1}{2}$  lbs.  
per 100. Per 10, 55c—per 100 \$5.00**

**Fence Separators, Danz., M. Weight 16 lbs.  
per 100. Per 10, 55c—per 100, \$5.00**

## HONEY SHIPPING CASES

These have a glass front, and corrugated, non-dripping packing, which protects against breakage, and are designed for marketing honey. If you expect to get the best market price, you must put your honey up in nice cases.

## PRICE LIST OF SHIPPING CASES

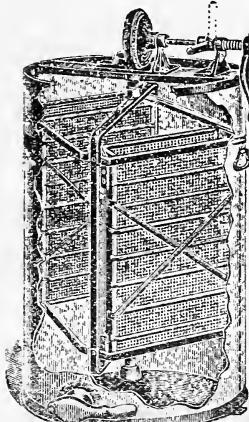
Non-Drip—	Nailed Ea.
24-lb. Root.....	\$0.55
24-lb. Western.....	...
24-lb. Eastern.....	.55
24-lb. for 3 $\frac{5}{8}$ x5 Sections.....	.50

## ROOT'S

Simple and practical. Fastens to the wall. Takes but little space. Works rapidly and accurately.

Price \$3.00

# HONEY AND WAX EXTRACTORS



Reversible Extractor

**The New Root Automatic Extractor—No. 25-B**—Fitted with a brake that reverses the frames instantly without jar or injury and without stopping. This is an exclusive feature of the Root Automatic. We furnish the 4 frame size. Has ball bearing and slip gear device. Weight 210 pounds.

Price \$50.00

**No. 5-B, Novice**—Two frame for any size frame not over 9½ by 18½ inches; weight 45 pounds.  
Write for prices.

**Cowan No. 15**—2 frame reversible extractor. This is a well known extractor. Weight 85 pounds.  
Write for prices.

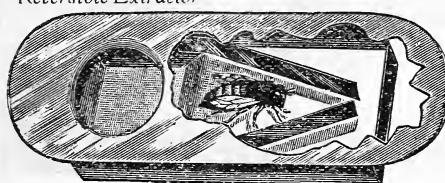
## WAX EXTRACTORS

**Doolittle Solar Wax Extractor.** With this the sun supplies the heat; wt. 30 lbs. Write for prices

## DON'T FORGET

we pay highest market price for  
**BEES WAX**

## HIVE FIXTURES AND SUPPLIES



### PORTER BEE ESCAPE

Great Labor-saver. Weight 2 ozs.

Price 20c—postpaid

Mounted. Weight 2½ lbs. Each 60c

### PORTER HONEY HOUSE ESCAPE

No extracting room is complete without one or more of them.

Each, 25c—postpaid

### FEEDERS

**Alexander.** Latest out. Used under rear end brood chamber. Weight 1¼ lbs. Price 40c  
**Simplicity.** Weight 6 ozs. Each 20c

**Miller's.** Sets on hive like a super; holds about 25 lbs. of syrup. Weight 5 lbs. K. D.

Nailed up complete, 80c; in flat, 70c

**Boardman's.** Weight ½ lb. Price without jar, 30c.

**Division Board Feeders.** Weight 1¾ lbs. Each, nailed, 50c

### PERFORATED ZINC

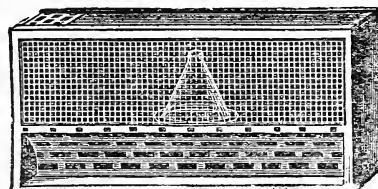
Used for making honey boards, also entrance guards, queen and drone traps, etc.

Perforated sheets, each 32x96. Weight 6 lbs \$4.70. Less than a sheet, per square foot. Weight 4½ ozs. 30c.

### QUEEN BEES

The past season has been so unfavorable to queen rearing and the demand so great, that we can only accept orders conditionally.

Write us at a seasonable time and we will advise whether or not we can supply, and quote on your requirements.



Alley's Combined Drone and Queen Trap

### ALLEY'S DRONE AND QUEEN TRAP

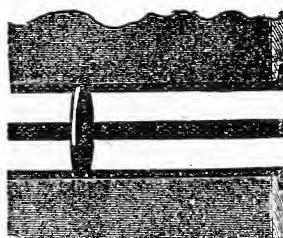
A non-swarming device. Weight 1 lb. Each, 8-frame 85c—10-frame 90c  
**Improved Wire Front.** Weight 1¼ lbs. Each, 8-frame 85c—10-frame 95c

### BEE ENTRANCE GUARDS

**Root's or Tinker's.** These are to admit workers, but exclude drones. Weight ¼ lb. Price Zinc Front, 8-Frame 25c—Improved Wire Front, Price 8-frame 30c, 10-frame 35c.

### HONEY BOARDS

Used to confine the queen to the brood chamber. Nos. 1 and 11 are unbound zinc. Nos. 12 and 13 are wood-bound with a bee space one side.



NEW  
STYLE  
WOOD AND  
WIRE  
HONEY  
BOARD

No sharp edges for the bees to pass over.

No. 11. 8-frame, unbound, 12x19½ in. 55c  
No. 1. 10-frame, unbound, 14x19½ in. 60c  
No. 13. 8-frame, wood-bound, 13½x20 in. 60c  
No. 12. 10-frame, wood-bound, 16x20 in. 65c  
No. 8. 8-frame, wood and wire, 13½x20 in. 75c  
No. 7. 10-frame, wood and wire, 16x20 in. 80c



# Hive Fixtures and Supplies (Continued)



## BEE BRUSHES

Coggshall's. (See cut) Price 35c—by mail 40c  
 Dixie. (See cut) Price 30c—by mail 35c  
 Bristle Black Price 40c—by mail 45c

## GLOVES, RUBBER

Ladies. Sizes 7, 8, 9. Price \$1.70—by mail \$1.80

Men's. Sizes 10, 11, 12.

Price \$2.00—by mail \$2.10

Men's Half Long. Sizes 13, 14, 15.

Price \$2.25—by mail \$2.35

## CANVAS—Long Sleeve, Oiled.

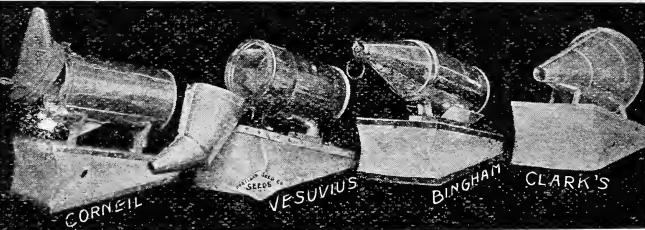
Price \$1.40—postpaid \$1.50

Note—To insure getting proper size, mark outline of hand on sheet of paper.

## SMOKERS

Every owner of a hive of bees should have a smoker. A few blasts of smoke will quiet the bees so that they can be handled with safety. (See cut of the leading kinds.)

**Clark's Cold Blast—Root's**  
 Probably the most popular smoker in use today. Weight  $1\frac{1}{4}$  lbs.  
 Price \$1.10



## IMPROVED CORNEIL

Makes a good strong blast. The most satisfactory and serviceable smokers.  
 Standard size,  $3\frac{1}{4}$ -inch, wt. 2 lbs. \$1.50  
 Standard Jumbo, 4-inch, wt. 2 lbs. \$1.75  
 Junior.  $2\frac{1}{2}$ -inch, weight  $1\frac{1}{4}$  lbs. .95  
 Danz, Victor. Combined hot and cold blast.  
 Weight  $1\frac{3}{4}$  lbs. Price \$1.20

## FOUNDATION FASTENERS

Parker's. A satisfactory and serviceable tool  
 Weight 1 lb. Price, 45c

Daisy Foundation Fastener. Will put starters in better and faster than any machine before introduced. Weight  $5\frac{1}{2}$  lbs.

Price, without lamp, \$1.50; with lamp \$1.80  
 Van Deusen Wax Tube Fastener. Price 35c  
 Root's, without lamp, 35c

## WIRE IMBEDDERS

The Easterday. Weight 4 ozs. Price 35c;  
 by mail 40c

Spur Wire Imbedder. Teeth set so as to straddle the wire while imbedding it. Weight,  
 4 ozs. Price 40c; by mail, 45c

## ROOT'S QUEEN REARING OUTFIT

A complete set of tools and materials, including book of instructions, enabling any one with very little experience to rear his own queens at small expense.

Price \$6.00

## MANUM'S SWARMING DEVICE

A most complete swarming device. The swarmer is light, conveniently carried and will reach a swarm 20 feet from the ground. Complete \$3.15—wire basket, with bail, no pole \$2.50. Weight  $3\frac{1}{2}$  lbs.

## BINGHAM SMOKERS

Strong, well made. The "Conqueror" and "Doctor" not excelled for use in large apiaries  
**Bingham Conqueror.** Weight 1 lb. \$1.25  
**Bingham Little Wonder.** Weight 1 lb. \$1.05  
**Bingham Doctor.** Weight  $1\frac{1}{2}$  lbs. \$1.35  
**Bingham Engine.** Weight  $1\frac{1}{2}$  lbs. \$1.60

## BEE VEILS

**Globe.** Has five bars that will keep veil away from head. Weight, 6 oz. Price \$1.50

**Hat Veils.** These veils have a rubber band round the top, so as to fit the hat snugly.

No. 1 Veil, made entirely of silk tulle.

\$1.50 postpaid

No. 2 Veil, cotton tulle, silk face.

\$1.20 postpaid

No. 3 Veil, cotton tulle throughout. \$1.10 postpaid

Alexander. \$1.50 postpaid

## No. 30 TINNED WIRE

$\frac{3}{4}$ -ounce spools. Each 10c

$\frac{1}{2}$ -pound spools. Each 25c

$\frac{1}{2}$ -pound spools. Each 40c

1-pound spools. Each 60c

5-pound coils. Each \$2.50

## TIN RABBETS

Price: 12-inch . . . . Per 10, 25c—per 100, \$2.25

14-inch . . . . Per 10, 30c—per 100, \$2.35

## T-TINS

Price: 13-inch . . . . Per 10, 25c—per 100, \$2.20

15-inch . . . . Per 10, 25c—per 100, \$2.25

## FLAT TINS

Price: 13-inch . . . . Per 10, 20c—per 100, \$1.45

15-inch . . . . Per 10, 20c—per 100, \$1.45





# Miscellaneous Bee Supplies

## CAGES FOR QUEENS

Benton—For mailing and introducing. Each no candy 5c—by mail 7c.

## QUEEN CELL PROTECTOR—Doolittle

Each 3c—by mail 5c

## WEST'S CELL PROTECTOR Ea 10c: 3 for 25c

## WEST'S SPIRAL CAGE Each 10c

## DIVISION BOARDS

Wt. 5 oz. per 10.

Each 15c—10 \$1.15

## FOLLOWERS

Each 5c—10, 45c

## HIVE TENT—Weight 6 lbs.

Price \$6.25

## HIVE CLAMPS—Without screws per pair 10c

—10 pairs 80c—add 3c per pair postage for single pairs.

## HIVE TOOL

Roots Nickel Steel.

Each 70c

## HONEY KNIVES

Novice. Price \$1.25—by mail \$1.30

Bingham. Price \$1.25—by mail \$1.30

Quimby. Price \$1.25—by mail \$1.30

## TIGHTENING SPRINGS.

10, 15c

## BEGINNERS' OUTFIT

To the inexperienced we recommend the following complete equipment—all that is necessary except the bees—these you can generally purchase near your home and save the express charges, if not we can supply them.

### 1 Copy A B C and X Y Z Bee Culture.

1 Fig. 1-8 P. S. Co.'s Dovetailed Western Cedar Hive.

1 Clark's Cold Blast Smoker.

1 Bee Veil No. 2.

1 Parker Foundation Fastener.

1 Porter Bee Escape, Mounted.

1 Pair Long Canvas Gloves.

**"GLEANINGS IN BEE CULTURE"** — The best bee magazine published, will be included with this outfit—a year's subscription.

**PRICE Without Bees \$10.50**

F. O. B. Portland

**BEES** can usually be purchased near your home and it is best to have them examined by an experienced man to see that the colony is in a healthy condition.

**ITALIAN BEES** (the leather colored), are to be preferred but any strong colony is alright for we can supply pure bred Italian Queens that will soon Italianize the colony as the worker bees live but a short time. If unable to get bees write us, we will try and secure them for you.

## Before You Get Your Bees, Choose a Location

**G**ENERALLY speaking, bees are not very cross on arrival as the shaking they get causes them to fill themselves with honey and in this condition they are easily handled and not disposed to sting. Level up stand for bottom board, place hive where wanted; always open entrance first, using as little smoke as possible. The bees will boil out with a rush, although making quite a fuss, they will not likely be very cross and sting. You can then remove screen on top of hive, replace the cover, seeing it is down tight, leave alone for a day or so, then manipulate as necessary.

Do not condemn a colony of Italians because a few black bees appear; bees mix and visit among themselves. Italians as imported do not produce golden bees. Most of the darker strains are better honey producers than the golden bees. Straight five banded bees have been produced by selection but have not accomplished much as honey gatherers when compared with the leather colored, neither have they proven as hardy.

Don't get excited if a bee starts after you.

Don't fight and slap; walk slowly away a few paces, keeping face down, as a bee cannot fly upward and sting.

Don't use too much smoke, just a few puffs is generally sufficient.

Don't pinch the bees in handling or in taking out of the frames; that makes them cross.

Don't stand in front of the hive while working with the bees.

Don't forget that bees are the most interesting and profitable insects in natural history.

## To Rid Bees of Foul Brood

This method is recommended by one of the most successful Bee men of the Northwest and when instructions are carefully followed, has proven a radical cure.

Drum the bees from the old colony into a new hive with 7 frames full of new sheets of foundation and one frame full of good, new, clean drawn comb, marking this frame.

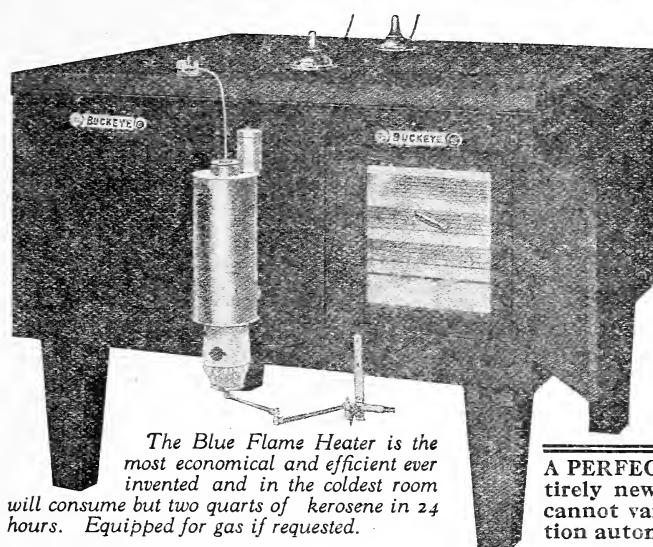
Then make a frame the size of the top of your hive, cover this with wire screen with a Porter bee escape in the center, turning this so the bees cannot pass up out of the hive. Place this screen on the top of the new hive. Place the old hive that the bees were drummed out of on the top of the screen, leaving the screen between the hives for 3 days. Then very gently lift the old hive from the new one. Set it to one side, lift the screen and remove the marked frame, shake the bees therefrom and in its place put another new frame of new foundation, destroying the marked one. Then replace the screen and the hive on top as they were before. In 21 days all the bees will be hatched in the old hive and will pass down into the new hive and the job is done.

The old hive should then be completely destroyed by burning, and any honey that is left after the burning of the hive and comb, should be buried, as honey will seldom burn.

**CAUTION:** Be sure to prevent any part of honey or comb from diseased colony being used by the bees or coming in contact with the new hive in any manner.



# New "BUCKEYE MAMMOTH" Incubator



*The Blue Flame Heater is the most economical and efficient ever invented and in the coldest room will consume but two quarts of kerosene in 24 hours. Equipped for gas if requested.*

A practical mammoth incubator with a capacity of **2440 eggs**.

Takes a floor-space of **only 5x5 feet**, will pass through an ordinary door and can be set up in any building.

Burns only **2 quarts of kerosene in 24 hours** and hatches big, healthy chicks from every fertile egg.

**A PERFECT HATCHER.** Built on an entirely new principle. The temperature cannot vary—the moisture and ventilation automatic and always correct.

**The "Buckeye Mammoth"** *a continuous hatcher*—The eggs are started in the top trays, and are worked down, so the chicks always hatch in the bottom trays.

Only in the Buckeye Mammoth is such an arrangement possible because under the old methods all the eggs must be placed in the egg chamber at the same time as the necessary cooling could not be applied to later lots of eggs while the first lot was hatching.

In the Buckeye Mammoth the eggs require no cooling. The real purpose of the cooling period was to give the developing chicks a breathing spell and allow the poisonous gases and foul air to pass out of the egg chamber.

By the continuous circulation in the Buckeye Mammoth the air is re-vitalized and the chicks produced are larger and of exceptional vitality.

For the special convenience of those that wish to introduce fresh eggs every few days a chick guard is provided for the four lower trays. By starting all the new eggs in top trays and moving the trays down as each hatch is completed the chicks always hatch in the bottom trays where the metal guard confines them comfortably in the dark when the machine is opened.

## SPECIFICATIONS AND PRICE

Capacity, 2440 eggs, size 5 feet square by 32 inches deep, legs 18 inches high.

The case is California redwood, cabinet construction, piano finish.

Boiler 14 ounces cold rolled copper, pipes cast iron.

The twenty egg trays are rigid, have wire net bottoms, and extra trays for turning are furnished. Lower trays are fitted with chick guards.

Gas or kerosene oil can be used. Average consumption of kerosene is 2 quarts, daily; gas 50 ft.

The electric fans are specially constructed with ball bearings and use very little current. A tested guaranteed thermometer is included.

The incubator is completely set up and tested before shipping, and anyone can attach the legs and electric wire, no mechanical skill required.

**PRICE \$380.00 f. o. b. Portland. Weight, crated, 850 lbs.**

## GUARANTEE

The Buckeye Mammoth is guaranteed to be mechanically perfect in every part, carefully constructed of select materials. Is further guaranteed to hatch more and better chicks than any other mammoth incubator of like capacity. If for any reason the purchaser has cause for complaint regarding the machine or its operation, satisfactory adjustment will be made.

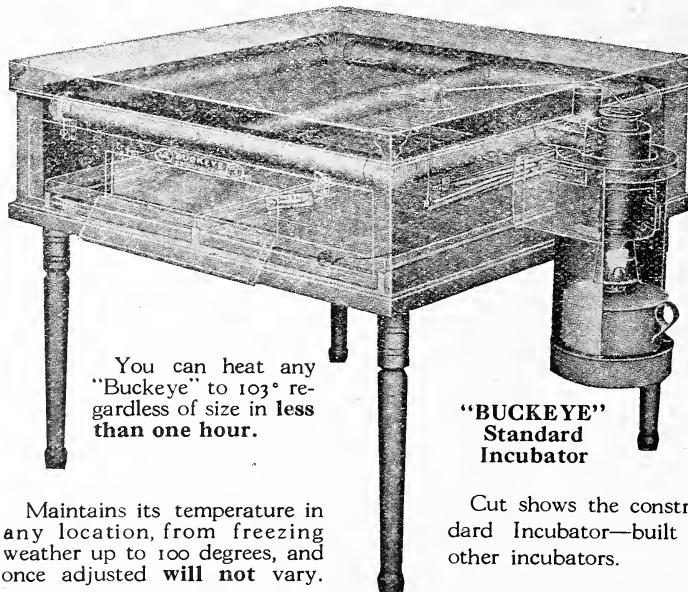
(Signed)

BUCKEYE INCUBATOR COMPANY

**Diamond Chick Food** Saves little chicks. Helps them to grow into big strong healthy birds. No other food is necessary. See page 126



# "BUCKEYE" Hot Water INCUBATORS



Maintains its temperature in any location, from freezing weather up to 100 degrees, and once adjusted will not vary.

Cut shows the construction of a "Buckeye" Standard Incubator—built to **outhatch** and **outlast** other incubators.

You fill the lamp, turn the eggs—and the "Buckeye" will hatch every hatchable egg. No experience needed.

Nearly half a million "Buckeyes" are in operation in all parts of the United States.

## READ THE FOLLOWING STATEMENTS FROM THE MANUFACTURER

**T**HIS unprecedented success which has followed the Buckeye for 25 years is primarily due to the invention of the Buckeye hot-water system, without which that perfect balance between the **temperature**, **moisture** and **ventilation** which is so necessary to successful incubation, would be a physical impossibility. Heating the egg chamber without cooking all the moisture out of the air is responsible not only for the abundant supply of natural moisture but at the same time the soft, radiated heat from the hot water tank provides an absolutely uniform temperature and permits the perfect ventilation of the egg chamber.

**We guarantee the temperature of every Buckeye we build to be uniform within a fraction of a degree at all times in the egg tray.**

**Requires no Artificial Moisture**      Regardless of the conditions under which a "Buckeye" Incubator may be operated it NEVER requires ARTIFICIAL moisture. The word NEVER sounds pretty strong and yet we mean it in its full sense. A "Buckeye" NEVER requires artificial moisture. We have sent over four hundred thousand (400,000) of them to all quarters of the globe—to be operated under the same positive instructions—and have never found a single instance where applied moisture was required to produce a perfect hatch.

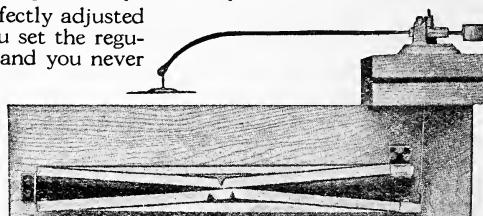
**THE BUCKEYE SYSTEM** of regulation is so perfectly adjusted that it works like a watch. You set the regulator when the hatch is started and you never touch it until the next hatch.

**Regulation of Temperature Purely Automatic--Needs No Watching**      The solid, all-metal construction of the Buckeye thermostat is so positive and perfect in its action that a variation of more than 2 degrees is an absolute impossibility. **We guarantee that:**

**Operated in any Temperature Regardless of Sudden Changes**      Cold rooms or sudden changes in the temperature have no terror for the "Buckeye." Regardless of size or price we GUARANTEE every Buckeye to work satisfactorily in any temperature down to freezing.

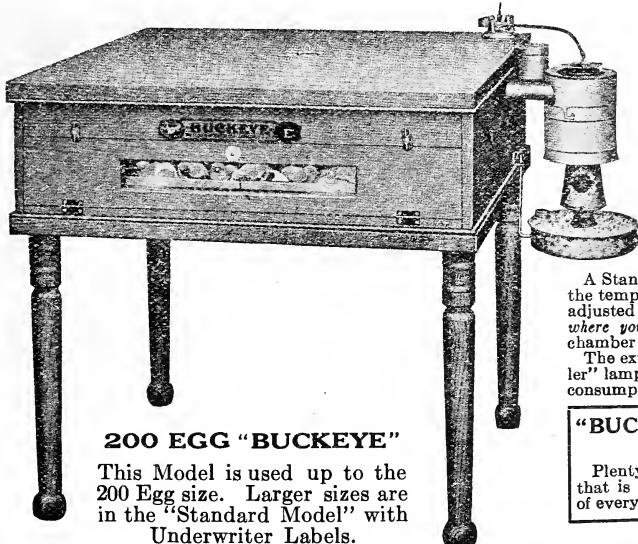
**Highest Type of Construction**      Every item that enters into the construction of a Buckeye is, without exception, the best that money can buy. The lumber, the metal, the hardware, the lamp, the thermometer—every item without exception—the best.

The labor that builds the raw material into the finished product is the best that money can employ. Boys and unskilled labor are unknown in the Buckeye factory.



**Simplicity of Operation**      No previous incubator experience is required to operate a "Buckeye." Outside of filling the lamp and turning the eggs, everything is automatic and requires no attention from the operator.

**Nothing left to the judgment of operator—that's why a "Buckeye" never goes wrong**

**200 EGG "BUCKEYE"**

This Model is used up to the 200 Egg size. Larger sizes are in the "Standard Model" with Underwriter Labels.

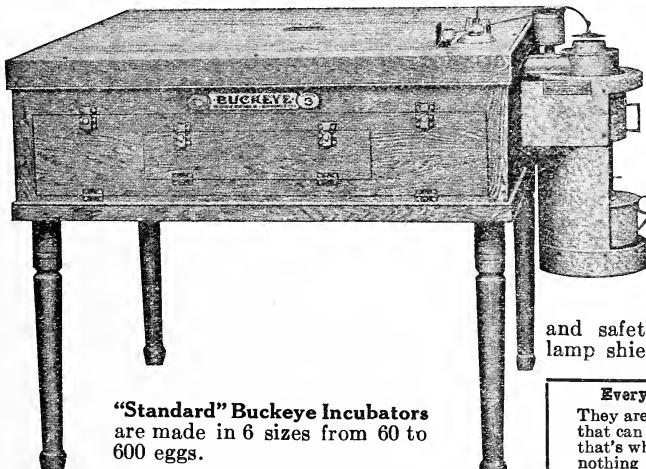
**EVERY "BUCKEYE"**

Regardless of size or price is guaranteed to hatch every hatchable egg.

**"Buckeye" No. 14**

Capacity 60 Eggs

A genuine "Buckeye"—has all the desirable features at the lowest price a good incubator could be made for. Style H, No. 15, is same capacity but has long legs—See the "Buckeye" Catalog.



**"Standard" Buckeye Incubators** are made in 6 sizes from 60 to 600 eggs.

PRICES and SIZES OF BUCKEYE INCUBATORS—F. O. B. Portland					
Size	Wt.	Price	Size	Wt.	Price
No. 14. 60 egg, short legs.....	55 lb.	\$13.50	No. 1. 110 egg.....	110 lb.	\$30.00
No. 15. 60 egg, tall.....	75 lb.	18.00	No. 2. 175 egg.....	135 lb.	36.00
No. 16. 110 egg.....	85 lb.	22.50	No. 3. 250 egg.....	200 lb.	47.00
No. 17. 200 egg.....	125 lb.	30.00	No. 4. 350 egg.....	230 lb.	57.50
<b>NEW MAMMOTH</b> , 2440 egg.....	850 lb.	380.00	No. 5. 600 egg.....	325 lb.	82.50

**"BUCKEYE" Incubators—Cont.****Styles E and H**

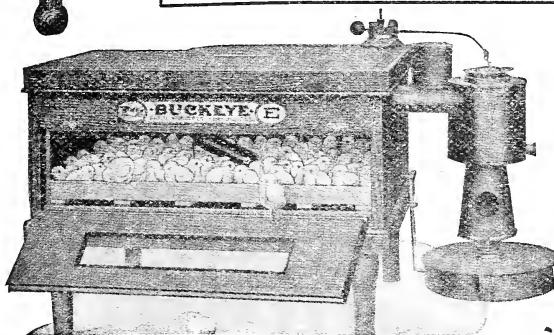
Made of California Redwood beautifully finished, with insulated double top and walls so built as to hold the temperature perfectly even in freezing weather—this is the popular model in sizes up to 200 eggs.

A Standard Buckeye metal thermostat regulates the temperature to a fraction of a degree, is easily adjusted at the beginning of the hatch, and stays where you put it, and the temperature in the egg chamber cannot change.

The extra large tank of new design and the "Miller" lamp burner insures plenty of heat with small consumption of fuel.

**"BUCKEYE" Incubators Never Require Artificial Moisture.**

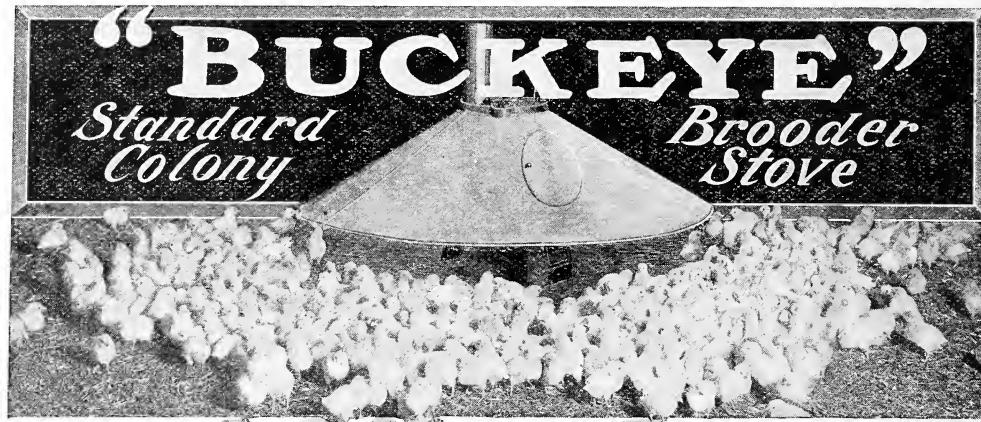
Plenty of fresh air in the Incubator room is all that is necessary to bring a big strong chick out of every hatchable egg.

**"BUCKEYE STANDARD" INCUBATORS**

"Buckeye Standard" is the Highest Grade Incubator in this line—is Fireproof, bearing the Underwriters labels and so perfect in operation that any beginner can run it successfully. The "standard" is equipped with every desirable device to add to its efficiency, durability and safety. The special features are the lamp shield and double wall construction.

**Every Standard Buckeye is Complete**

They are equipped with every desirable device that can possibly be added to any incubator—that's why the big breeders like them. There's nothing left undone—nothing to be wished for.



*This is the Famous Original Brooder Stove that has been copied or imitated by every manufacturer of Brooder Stoves.*

## Self Feeding      Self Regulating      Everlasting

Cuts the Cost of Equipment and Operation to Less Than Half—Reduces the Time and Labor to Less Than a Fourth. Nothing to Break. Nothing to Wear Out. The Simplest, Safest and Most Economical Brooder Ever Invented

**BUCKEYE BROODER STOVES** will do anything any other brooder will do—regardless of price—and do it better. It matters not whether you have ten or ten hundred chicks under a Standard Colony Brooder, the results are the same. You can remove part of the chicks or increase the number at any time.

**Air Always Pure and Fresh**—No dampers or valves of any kind between the smoke pipe and the fire, the draft being controlled automatically, an exclusive feature of the Standard Colony Brooder and the only coal-burning Brooder that is absolutely free from gases under the Hover.

**Operated Anywhere**—No room is too large or too small for a Standard Colony Brooder. Whether it is operated in the largest barn or the smallest colony house, the results will be the same.

**Burns any Fuel**—Hard or soft coal, charcoal, coke, briquettes or gas. Hard coal is best simply because it is cleaner. All fuel should be nut size.

**Regulator**—Two double disc thermostats—tandem hitched—supported on substantial casting that is bolted solidly to stove. Lower arm movable and attached to check valve by substantial iron rod. Chick-proof, accurate and positive.

**Standard Colony Brooder** is fire-proof, simple and requires little attention; has but one adjusting nut which you need never touch more than once in a season. Requires absolutely no more attention than filling with coal once a day, shaking down the ashes into the pan twice.

**The first cost is the only cost. Nothing to Wear Out.** Nothing to break, being made of cast iron just like a kitchen range, and the Hover is of galvanized steel built to last a lifetime.

## 1918 "Buckeye" Standard Brooder Stoves MADE IN TWO SIZES

### NUMBER 18

Height of stove  $20\frac{3}{4}$  inches; diameter of stove  $10\frac{3}{4}$  inches; diameter of base  $11\frac{1}{2}$  inches. Fireproof base 7 inches high with corrugated asbestos pad attached to lower plate and 1 inch air space between asbestos pad and floor.

**Grates.** Rocker furnace type made of solid casting, outside clearance, free burning, self cleaning and anti-clog. Diameter  $7\frac{1}{2}$  inches.

**Hover.** Galvanized steel 42 inches in diameter, removable, mounted on a substantial ring casting that rests on the top of the stove, moulded to fit and cannot be displaced. Furnished complete with rope and pulley for quick attachment. (One length 3-inch pipe.)

**Capacity** any number of newly hatched chicks up to 500.

**PRICE** \$21.00. **Shipping weight** 75 lbs.

### NUMBER 19

Height of stove  $22\frac{1}{2}$  inches; diameter 12 inches; diameter of base  $11\frac{1}{2}$  inches. Fireproof base 7 inches high with corrugated asbestos pad attached to lower plate and 1 inch air space between asbestos pad and floor.

**Grates.** Rocker furnace type made of solid casting, outside clearance, free burning, self cleaning and anti-clog. Diameter 9 inches.

**Hover.** Galvanized steel 52 inches in diameter, removable, mounted on a substantial ring casting that rests on the top of the stove, moulded to fit and cannot be displaced. Furnished complete with rope and pulleys for quick attachment. (One length 3-inch pipe.)

**Capacity** any number of newly hatched chicks up to 1,000.

**PRICE** \$26.50. **Shipping weight** 94 lbs.

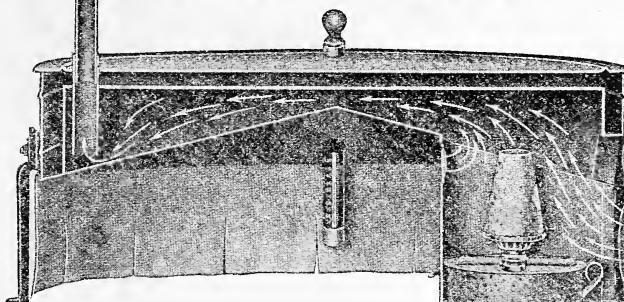
## Pipe for Buckeye Brooder Stoves

Buckeye Brooder Stoves take 3 inch pipe in standard lengths of 24 inches and the pipe and elbows needed can usually be purchased from your local dealer.

We supply one length free with every stove, and more can be ordered at the following prices:

<b>Prices</b>	3 inch pipe for Brooder Stoves, f. o. b. Portland, per length.....	30c
	Elbows for 3 inch pipe, f. o. b. Portland, each.....	25c

# BUCKEYE PORTABLE BROODER



Showing a Sectional View of the "Buckeye" Brooder

The Lamp Brooder that broods like a Stove Brooder. The chicks hover at the curtain, making crowding impossible.

Note that every particle of air under the hover is drawn from the outside—then up into the upper chamber, where it is discharged through the exhaust tubes. Every particle of impurity is drawn up and out—nothing can come back.

### IT'S A TRULY WONDERFUL BROODER— AND IT'S DURABLE

Nothing about it but metal—excepting the curtain—and that's interchangeable.

**THERE IS NO WASTE OF HEAT.** The dead air space keeps all the heat in and all the cold out. This construction insures the highest degree of efficiency, and we Guarantee the satisfactory heating of every brooder in any inside temperature down to freezing.

**THE "BUCKEYE" LAMP IS NOT ENCLOSED.** This feature of the "Buckeye" Brooder is in itself one of the most valuable improvements ever made to an oil-burning brooder. It is, in fact, the improvement that makes the oil-burner just as safe as a coal-burning stove.

**FRESH AIR.** The constant current of fresh air over the lamp bowl prevents all possibility of overheating the oil, and absolute safety is the result. This improvement is just as good as an insurance policy. **IT'S THE FRESH AIR THAT MAKES THE CHICKS GROW.**

**THE OUTSIDE SHELL** is made of 28-gauge galvanized steel—the inside shell is 28-gauge black iron—with a one-inch dead air space between.

**THE BROODER BODY** is supported by three **Cast-Iron Legs** that are rigidly secured to the sides by a set nut, which makes them easily detachable.

**THE LAMP SUPPORT** is free from the floor and is welded to the plate above. The door to the lamp chamber is of galvanized steel with a large peep hole for the ready observation of the lamp.

**THE LAMP BOWL** is made of seamless galvanized steel—the burner is a "Miller"—all the fittings are of heavy brass and the chimney is made of sturdy black iron.

**THE THERMOMETER** is mounted on a hardwood turning which is dropped through the top of the brooder, and brings the bulb of the instrument right down to the level of the chicks. Each brooder is equipped with a thermometer.

### Prices

Made in	No. 20—Diameter 19 inches, 60 chicks.....	\$ 9.50
Three Sizes	No. 21—Diameter 22 inches, 100 chicks.....	11.50
	No. 22—Diameter 30 inches, 150 chicks.....	15.00

### Thoroughbred Poultry and Eggs for Setting

Send us your orders for Poultry or Eggs, **any breed or strain**, and secure the advantage of expert critical selection, that guarantees full value for your money. We do not depend on any one breeder, but can give you the pick of the prize-winning strains at right prices.

OUR SPECIAL POULTRY SUPPLY CATALOG lists everything necessary for the profitable production of poultry and contains valuable information on poultry diseases, care and treatment. We want everyone interested in poultry to have this catalog and the "Mandy Lee" Books. Free.





# MANN BONE CUTTERS

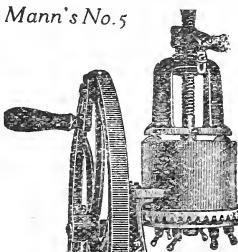
The Only Mill That Will Cut Green Bone and Not Clog.

THE Mann's Green Bone Cutter is offered to the poultry world on a warranty to produce a perfectly edible poultry food, with no waste, from any lot of green bones, with less labor, and less annoyance than any other bone cutter.

We send the Mann's to any responsible poultryman with this understanding; if you are not satisfied that it meets every claim we make for it, notify us, and we will give instructions to return the machine, and will, upon receipt of same **refund purchase price**. Could you ask more?

The Mann's is the only machine which has a self-governing feed, producing uniform pressure against the knife, whether the bone be hard or soft. You set the machine to suit your strength, and it never requires more power than you set it for.

*Mann's No. 5*



## MANN'S NO. 5

Has four knives, large solid cylinder, and has the latest patent automatic governing spring feed which makes it one of the best low-priced bone cutters ever offered. We can furnish with crank, balance wheel, or mounted on iron stand.

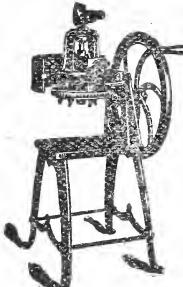
Mechanism of the Mann's showing automatic force-feed, cylinder parts, etc. Mann's catalog gives all details.

## MANN'S NO. 7

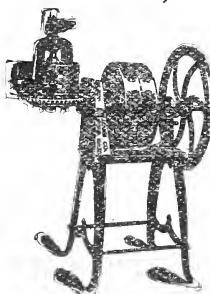
The New No. 7 is mounted on a strong iron stand, and has patent automatic governing spring feed. Large open-hinged cylinder, giving instant access to all working parts, has six knives, gear guard, anti-clog device, heavy balance wheel and other improvements. (See cut.)

## MANN'S NO. 7½

Adapted to run either by hand or power without any change. The particular advantage of the 7½ is that while it is a complete power machine, it can be operated by hand just as easily as the No. 7. It is recommended even if you have no power, for should you get power you need be at no further expense.



*Mann's No. 9*

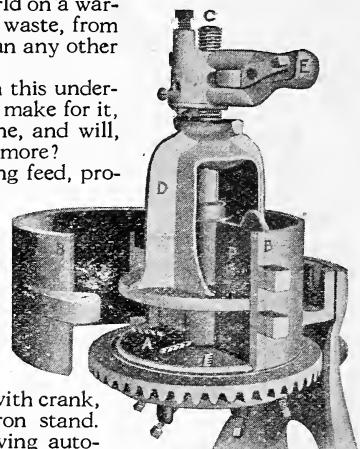


*Mann's No. 11*

## PRICE LIST OF MANN'S BONE CUTTERS

### New Styles

	Price	Wgt.
No. 5C (with crank handle).....	\$11.85	30
No. 5B (with balance wheel).....	17.25	55
No. 5BM (B. W. and iron stand)....	22.25	80
No. 7 (B. W. and iron stand)....	25.00	107
No. 7½ (hand or power).....	34.00	150
No. 9 (B. W. and iron stand)....	39.00	163
No. 11 (power machine).....	53.00	215
No. 12 (power machine).....	66.00	260
No. 15 (power machine).....	128.00	420



*Mann's No. 7½*

## MANN'S NO. 9

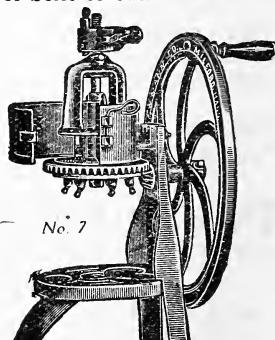
About the same as No. 7, except that it has a larger cylinder and greater holding capacity, different design and larger table.

## MANN'S NO. 11

The No. 11 is exactly the same as No. 9, with the power parts added. It has all the latest improvements. Capacity, 100 pounds per hour.

## MANN'S NO. 12—POWER

Strictly a power machine, and full of business from top to toe. Capacity 120 to 150 pounds per hour. Horse-power required, one to two. Just the machine for marketmen, extensive breeders, or anyone who has large quantities of bone to cut.



*No. 7*

**MANN'S HANDSOME 40-PAGE CATALOG**  
is fully illustrated and tells all about the different style Green Bone Cutters, Clover Cutters, Corn Shellers, Grit Smashers, etc., and contains much valuable information. Free on request.

## Mann's Corn Sheller

Best low-priced corn sheller made. A profitable tool if you have corn to shell. Weight 10 lbs.

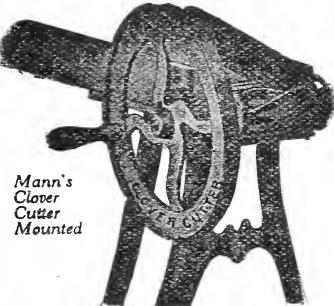
Price \$3.75

## Mann's Cast Iron Mortar

For breaking glass, crockery ware or oyster shells. Weight 33 pounds; height, 12 inches; 9 inches square; pestle 4 feet long. Price \$5.85

## Mann's Clover Cutter

Made entirely of iron and steel; cannot warp or shrink. It cuts any kind of hay or clover, either dry or green, and more rapidly than any other make. Each revolution of the balance wheel produces 12 cuts. Do not buy a clover cutter until you have seen Mann's. Price \$13.00; mounted on iron stand, \$15.00



Mann's  
Clover  
Cutter  
Mounted



Wilson's Mill No. 1

## Wilson Dry Bone Mill No. 1

This is a practical mill, grinding all kinds of shell, crockery, grit, burnt or dry bone, feed, etc. Instantly adjusted to grind coarse or fine. Every poultry keeper should have one of these mills. You will find them very convenient

and serviceable. Weight 33 lbs.  
Price, \$6.75

## Wilson Grist Mill No. 0

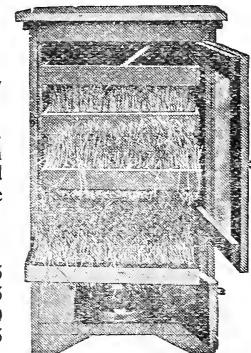
A family grist mill in itself. Especially made for grinding flour, corn meal, spices, coffee, etc., for table use. It can also be adjusted for cracking grain. Capacity and size same as No. 1; hopper round. Weight 30 pounds.

Price \$6.75

## SPROUTED OATS

INCREASE THE EGG YIELD, DECREASE THE FEED BILL

A bushel of oats sprouts into 3 bushels of nutritious green feed. Hens lay more eggs, young chicks grow faster and are more healthy on green feed. Oats, rye and wheat can be easily and quickly sprouted and make the most economical and profitable food for winter. We carry the DOUBLE QUICK and COLFAX METAL GRAIN SPROUTERS.



**COLFAX METAL**—*Two Trays.*

Small Base— $\frac{1}{4}$  Bu., 25 to 35 hens, 13x16x20, Weight 25 lbs. .... \$ 9.25

Small Section— $\frac{1}{4}$  Bu., 25 to 35 hens, 13x16x10, Wt. 12 lbs. .... 4.25

Large Base—1 Bu., 100 to 150 hens, 26x26x22, Wt. 50 lbs. .... 18.50

Large Section—1 Bu., 100 to 150 hens, 26x26x10, Wt. 33 lbs. ... 9.25

**"DOUBLE QUICK"**

No. 1— $\frac{1}{4}$ Bu., 2 trays, 25 to 37 hens, 18x14x23, Wt. 35 lbs. ....	\$10.00
No. 2— $\frac{1}{2}$ Bu., 4 trays, 50 to 75 hens, 18x14x30, Wt. 45 lbs. ....	12.50
No. 3—1 Bu., 5 trays, 100 to 150 hens, 21x17x40, Wt. 75 lbs. ....	18.25
No. 4—2 Bu., 6 trays, 200 to 300 hens, 25x20x44, Wt. 100 lbs. ....	29.00

## NORWICH AUTOMATIC EXERCISER AND FEEDER

Chicks  
6 weeks old  
will  
operate  
this feeder



Every kernel of grain put into this feeder will go to your flock, not a single one will be wasted. Absolutely bird and rat proof. Rain or dampness cannot affect it. Saves its cost in 90 days by preventing waste, requires no attention except filling of hopper when empty. Adjustable for slow or fast feeding.

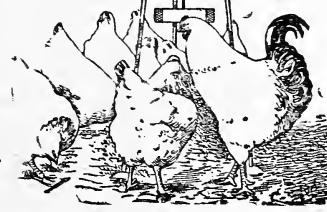
**KEEPS THEM BUSY ALL THE TIME**

Guaranteed to improve the flock, increase the egg production and save feed. Descriptive pamphlet on request.

**MADE OF HEAVY GALVANIZED IRON**

Each

No. 1—8 quarts.....	\$3.75
No. 2—14 quarts.....	4.75
No. 3—20 quarts.....	5.90



## “DAY-OLD” CHICKS

Hatched to order in the “BUCKEYE” MAMMOTH.” See page 115.





# FEEDERS AND FOUNTS

## DIAMOND GALVANIZED WALL FOUNTAIN



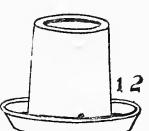
No. 5. Something new and serviceable. To be hung on the wall or against an upright post. The patented construction protects the water from becoming soiled. One gallon size, weight 2 lbs. Each 90c

Two-gallon size, weight 2½ lbs. Each \$1.15

## NO. 1 "DIAMOND" SANITARY SELF-FEEDING BOXES

Made of heavy galvanized iron; soon pays for itself in preventing waste of feed. Keeps grit, shells and charcoal before the fowls at all times.

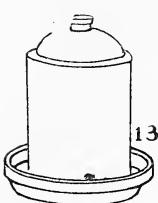
Price, 3 compartments, weight 2½ lbs., each, 95c. Large size, 2 compartments, weight 3 lbs., each \$1.25.



No. 12. GALVANIZED IRON DRINKING FOUNTAINS.  
Our Galvanized Iron Drinking Fountains, we believe, are the best in use. They are easily filled, cleaned and kept clean. Lighter than the earthenware and safer to ship.

Price: Small size, weight ¾ lb., each 45c; medium size, weight 1 lb., each 55c; large size, weight 1½ lbs., each 70c; extra Pans, 20c to 30c.

## SANITARY STONE FOUNTAIN



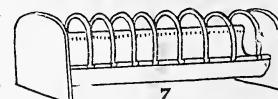
These are strong and well finished; made in two pieces. They probably keep the water cooler than the galvanized fountains, but are heavier to handle and more liable to break.

Price: ½ gal. 40c; 1 gal. 60c; 2 gal. 85c.

## NO. 7. WIRE COVERED FEEDER

A practical, convenient feeder for young chicks. Durable and easily cleaned. Weight 1 lb.

Price: 12 inches, each 45c



## DIAMOND CHICK FOOD Saves little chicks—See Page 126

# BARGAINS IN FOUNTS AND FEEDERS

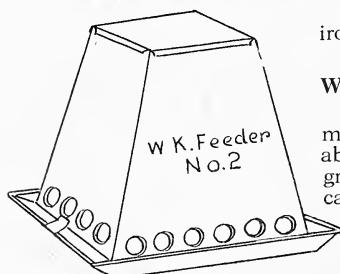
Until sold we offer the following—well made of heavy galvanized iron. The supply is limited and you must order early.

## NO. 2.

## W. K. FEEDER

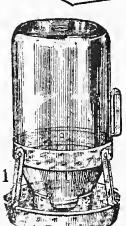
A large, well made feeder holds about 16 pounds of grain and the chicks can feed from all sides.

Price each 75c



## NO. 2 W. K. FOUNT

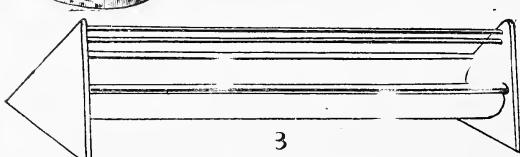
Large capacity. Same size and style as W. K. Feeder No. 2. Price each 75c



## NO. 11 W. K. FOUNT

An inexpensive handy fountain for use with glass fruit jars.

Price without jar, each 20c



## NO. 3 GALVANIZED FEED TROUGH

A strong and serviceable feeder. Length 20 inches. Price each 65c

## NO. 4 MOE FOUNTAIN

Has a dead air space that keeps the water cool in summer and protects from freezing.

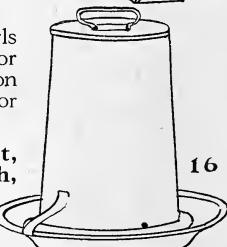
Price: 1 gal., each \$1.00  
2 gal., each \$1.35



## MANN'S SWINGING FEED TRAY

For water or feed. Fowls cannot scratch dirt into it, or feed out of it, nor roost on it; yet will not tip over or spill the food out.

Price: 18-inch, weight, 5½ lbs., \$1.25; 27-inch, weight 6½ lbs., \$1.50; 36-inch, weight 8 lbs., \$1.85.



## NO. 16 W. K. FOUNT

This has large capacity, 2 gallons, and is well made.

Price each 60c

## NO. 15 FEEDER

A practical little feeder for use with glass jar. Price without jar, each 15c.



16

15

# MISCELLANEOUS POULTRY SUPPLIES

## LEG BANDS FOR POULTRY AND PIGEONS (SEE CUTS)

Every chicken must have a leg band on before it can be entered in a poultry show. In ordering Leg Bands, be sure to state size wanted, or breed of fowls bands are to be used on, and number wanted for males or females.



DOUBLE CLINCH LEG BANDS PIGEON SIZES

**PIGEON BANDS.** We can supply the Double Clinch and Open Band—you simply clasp it on—at price of Double Clinch.

**SMITH SEALED—Pigeon.** Doz. 30c; 100, \$1.50



Champion.

### SMITH SEALING TOOL

Made especially for sealing the Smith leg bands. Plain jaw, 50c; lettered jaw, any letter, 75c; postage 10c.

### RELIABLE POULTRY MARKER

For marking the web between the toes. One of the best and handiest markers. Postpaid 35c

### POULTRY KILLING KNIFE

French, best and most popular. Postpaid 50c

### SCISSOR POULTRY PUNCH

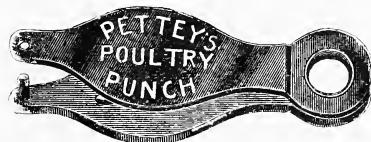
Strong. Cuts clean. Each 15c, postpaid 20c

**CHAMPION.** Latest and best adjustable leg band out. Has neat, compact, and smooth fastening, with no catching points; easily attached and absolutely secure. Prices postpaid 12 for 20c; 25 for 35c; 50 for 60c; 100 for 95c.

**DOUBLE CLINCH.** A new band, very safe; no exposed corners, ends or loops; has double fasteners. Prices postpaid 12 for 20c; 25 for 35c; 50 for 60c; 100 for 95c.

**SMITH SEALED.** Of aluminum and so constructed that by simply crushing a soft rivet they are sealed on the bird's leg, and must be destroyed to be removed.

Prices postpaid, 12 for 30c; 25 for 55c; 60 for \$1.15; 100 for \$1.50.



### PETTEY'S POULTRY PUNCH

Latest, most convenient Poultry Punch; can be put on a key ring or used for a watch charm. Will not clog. Very practical. Postpaid 25c

## THERMOMETERS

### FOR INCUBATORS—TESTED

"Buckeye." Tested. Each 75c

Fig. 6.—P. S. Co.'s triangle shape; metal back. Each 75c

Fig. 10.—P. S. Co.'s Straight Metal back. Each 60c

Fig. 7.—Mandy Lee style. Each 75c

### WILDER ILLUMINATED THERMOMETER

Simply press the button and the temperature is plainly indicated without opening the doors. So simple a child can attach. Each \$2.75

### FOR BROODERS

"Buckeye." Tested. Each 75c

Fig. 2.—P. S. Co.'s; for any style brooder. Each 50c

### FOR GENERAL USE

Cabinet No. 5. 8-in. wood back, nice finish \$0.40

Copper Case, household use. Each \$1.35

### HOTBED THERMOMETERS

For taking temperature of soil at varying depths.

No. 3½. Each \$1.50

No. 3. Each \$1.75

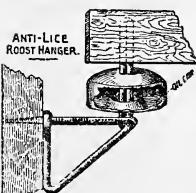
All Metal. Each \$2.00

### BREEDER'S MAGIC EGG TESTER

The Manufacturer's Challenge—Any person in the world to hatch one egg the Magic Egg Tester registers unhatchable **before incubation**. No light. No electricity. No expense and lasts a life-time. Shows the hatchable eggs before incubation.

Don't set another egg until you have the Breeders' Magic Egg Tester. Price each \$2.00

**MANDY LEE EGG TESTER**—Made to use on lamp, fits No. 2 burner. Price 50c postpaid



### ANTI-LICE Roost Hanger

Screws into the wall. Keep the cup filled with Lee's Lice Killer or kerosene.

Price each 15c; pair, 25c; doz. \$1.50.

### CAPONIZING INSTRUMENTS

The demand for capons exceeds the supply, the price per pound averaging more than twice as much as that paid for ordinary roosters.

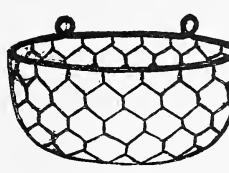
**P. S. CO.'S STANDARD**, the best low priced set. Price postpaid \$2.00

**WIGMORE**, a first-class outfit with book of instructions. Price postpaid \$2.50

### CHINA NEST EGGS

Best grade Opal Eggs. Weight per doz. ¾ lb.

Price: 3 for 10c; 12 for 35c



### WIRE HEN'S NESTS

Strongly made; very durable; fasten to the wall; no harbor for vermin. Weight 10ozs. each. Price each 25c; dozen \$2.50.



## MISCELLANEOUS POULTRY SUPPLIES—Continued



**Portland Seed Co.** Portland, Oregon

Kant-Krack Egg Box is specially designed for the safe delivery of valuable eggs for hatching and is a great favorite with poultrymen.

**Made of heavy corrugated paper.** Only a few seconds' work to set the box up, pack it with eggs, and address it. These boxes are light but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing.

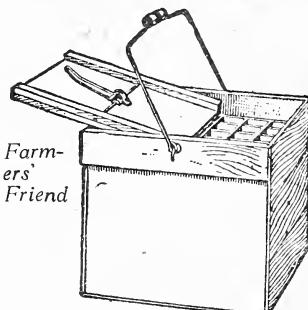
No.	Size	Weight	Each	Six	Dozen
3	15-Egg	1 lb.	\$0.20	\$1.00	\$1.65
4	30-Egg	1½ lb.	.30	1.50	2.75
5	50-Egg	2 lb.	.40	2.15	3.75

## IDEAL PAPER EGG BOXES

Intended for use in delivering eggs to private families. Nicely printed with a blank space for your name and address. Weight 12 lbs. per 100.

Prices: 1-dozen size, 20c dozen; 95c per 100; \$9.00 per 1000. Sample box by mail 5c

## FARMERS' FRIEND EGG CARRIER



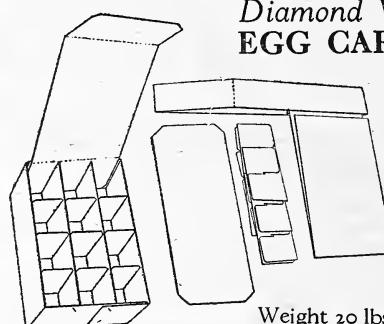
Strong and durable. Holds 12 dozen eggs. Comes set up complete with fillers. A safe and convenient carrier for mailing or delivery. Weight 6 lbs. Price each 75c

## LIVE CHICK BOXES

Our Live Chicken Boxes for delivering day-old chicks are safe, economical, convenient. They come in three sizes at the following prices:

25-chick size, ea. 20c; doz. \$2.25; 50-chick size, ea. 30c; doz. \$3.00; 100-chick size, ea. 50c; doz. \$5.00.

## Diamond Veneer EGG CARTON

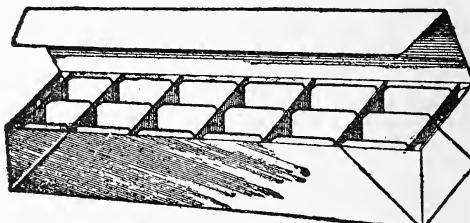


Strong  
Light  
Rigid  
  
Moisture  
Does Not  
Affect It

Weight 20 lbs. per 100.  
(Packed flat in crates of  $\frac{1}{3}$  of a thousand; covers in bundles of 1000).

A safe, strong package that will hold its shape and deliver the eggs without loss.

Prices: 1 doz. 15c; 100, 75c; 1000, \$7.00



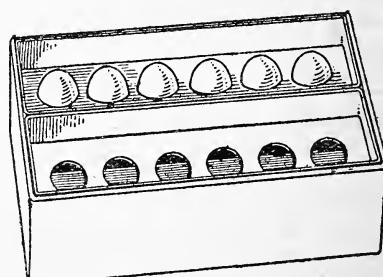
## SUWANEE EGG CARTON

Throw away your "fillers." Use this carton; packs three to a layer in an ordinary egg case, and is always ready for delivery. **Saves handling—saves breakage.** Built with double walls. Ask for sample. Weight with fillers, 3 ozs. each.

Price: Doz. 25c; 100, \$1.55; 1000, \$14.50

## NON-BUSTO EGG CARRIER

Holds the egg in suspension so it cannot touch the top or bottom. Easily and quickly set up and filled. A serviceable package at a low price.



Non-Busto prices: 1-do. size 80c doz.; 2-do. size \$1.35 doz.; 3-do. size \$1.75 doz.; 4-do. size \$2.25 doz.; 5-do. size \$2.75 doz.

## COLLAPSIBLE POULTRY COOPS

These are the neatest, lightest and strongest coops for shipping poultry that we have ever seen. They are well made, and will last for years. Easily cleaned and stored.

No. 1 Coop—For 12 to 24 chickens, size 36x24x12, weight 23 pounds. .... Price \$2.00  
No. 3 Coop—For 24 to 36 chickens, size 48x30x14, weight 33 pounds. This is the favorite size. Price \$2.80

No. 4 Coop—For turkeys and geese; will carry 250 pounds of weight. Size 48x30x23 Price \$3.00

# REMEDIES, LICE KILLERS, ETC.

## LEE'S FOODS AND REMEDIES FOR STOCK AND POULTRY

THE GENUINE MERIT of the LEE FOODS and REMEDIES and their recognized superiority is their best guarantee, and you can depend upon them absolutely to do all that is claimed for them. The valuable booklets of the Lee Company are free to poultry keepers and stockmen, and contain reliable and complete information to date on poultry and stock feeding problems. We mail them on request.

### LEE'S LICE KILLER—FOR 20 YEARS THE STANDARD

**LIQUID.** Destroys either by vapor or contact. No trouble to apply; just paint the roosts or wall at night. Rids poultry and houses of all vermin; is prepared exclusively for this purpose, and there is nothing just as good.

Price: Qt. 50c;  $\frac{1}{2}$  gal. 75c; 1 gal. \$1.25; 5 gal. \$5.00



### GERMOZONE

Regular use of Germozone insures BETTER health; BETTER chicks; BETTER layers; and the RIGHT kind of BREEDERS. Use it for Bowel Complaint in little chicks; for Cholera, Roup, and other diseases among the older fowls; and regularly TWICE - A - WEEK for ALL fowls. It prevents contagion, tones the system, and insures BETTER health for the entire flock.

#### PRICES

12-oz. bottle.	Liquid.....	75c
Small size bottle.	Liquid.....	40c
Pkg. postpaid.	Tablets .....	75c

**LEE'S EGG MAKER** is not a tonic nor a medicine, but a meat food of great value. It will make hens lay, chicks grow, and keep them all in a healthy, vigorous condition.

2-lb. pkg. 35c; 5-lb. pkg. 75c; 25-lb. pail \$3.50  
100-lb. drum \$12.50

**LEE'S HEADLICE OINTMENT.** For little chicks.  
Large box, 15c

**LEE'S INSECT DESTROYER.** (Powder.)  
1-lb. can 25c

**LEE'S WHITE DIARRHOEA REMEDY.** The best medicine for this dangerous disease of little chicks. Wt. 2 lbs.; 12-oz. bottle 50c

**LEE'S HOG REMEDY.** Cures all diseases of hogs and keeps them healthy.

7½-lb. pkg. \$1.00, Mailing wt. 9 lbs.;  
25-lb. pail \$3.00.

**LEE'S CARBOLIC SHEEP DIP.** For lice, ticks, mange, itch or scab, on cattle, sheep and hogs. Qt. 60c;  $\frac{1}{2}$  gal. 75c; gal. \$1.25; 5 gals. \$5.00. Mailing wts. qt. 3 lbs.;  $\frac{1}{2}$  gal. 5 lbs.; gal. 10 lbs.

**LEE'S WORM POWDER.** For horses, cattle, sheep and hogs. Safe and sure in result.  
Pkg. 25c; weight 1½ lbs.

**LEE'S BEST CONDITIONER STOCK FOOD.** Promotes good health, digestion and assimilation.

35c pkgs. wt. 3 lbs.; 7½ lb. pkg. \$1.00;  
25-lb. pails \$3.50.

**LEE'S PEERLESS GOPHER KILLER.** For killing gophers, squirrels, etc. Sure death.  
Quart can, wt. 3 lbs., 75c

**LEE'S PEERLESS BUG KILLER.**  
Wt. pkd., 2 lbs.; 12-oz. bottle, 20c

**LEE'S HICKORY SMOKE EXTRACT.** Hickory Smoke Extract applied to meat preserves it indefinitely, imparting the delicious flavor that is only otherwise obtained by smoking with green hickory.

12-oz. bottle, wt. pkd. 2 lbs., 35c; 32-oz. bottle 75c.

**LEE'S FLYO-CURO.** We sell thousands of cans of this fly spray every season, and it gives good satisfaction.

Qt. 60c;  $\frac{1}{2}$  gal. 90c; Mailing wts. qt. 3 lbs.;  $\frac{1}{2}$  gal. 5 lbs.



## EGG-O-HATCH and EGG-O-LATUM

#### DON'T GET THE TWO NAMES MIXED

Egg-o-hatch is a dry powder. It is mixed with water and the resulting liquid is applied to eggs two or three times during the 21 days of incubation. It is a liquid that does three things—supplies oxygen for the growing chick; absorbs carbon dioxide given off; makes more brittle and porous the shell of the egg.

Price 50c postpaid Will treat 600 eggs



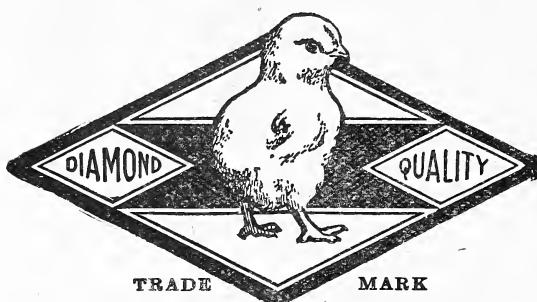
Egg-o-latrum is a white cerate. Rubbed over the shell of the egg it seals every pore so no air, moisture, odors, or germs can get in. Preserves the egg in all its original freshness. The application of Egg-o-latrum is easily and quickly done. A dozen a minute and they will keep a year. Fresh eggs must be used, unfertilized ones are best. One pkg. treats 50 doz. eggs. Price 50c postpaid



## PORTLAND SEED CO.'S

# "DIAMOND QUALITY" POULTRY FOODS

**W**e manufacture our Diamond Poultry Foods from choice, clean, wholesome material. They are made to a standard and are the result of a lifetime of careful study and experiments by a thoroughly practical expert, who is a recognized authority on feeding.



### The Making of Diamond Chick Food

The select grains that are used in the preparation of Diamond Chick Food are cut by a special process, screened to a uniform size and run through a Fanning Mill to remove the dust and meal, which is the fatal element in most Chick Foods. After this process the ingredients are carefully weighed and mixed in correct proportions. No guess work.

By using Diamond Chick Food you are giving the chicks just what Nature Intended they should have, a food composed of grains (cracked), small seeds, bone, dried sweet meat, charcoal, etc., mixed in the right proportions to produce a quick and profitable growth without loss. It's so convenient, so handy, always ready for use, and you can raise so many more chicks by feeding it that it is the **cheapest food you can buy**. A trial is all we ask.

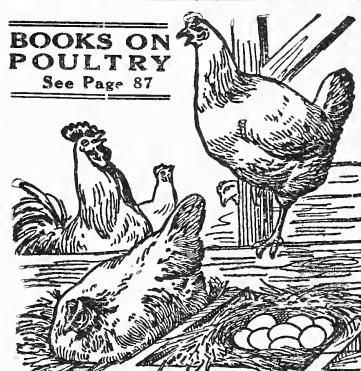
Ask for descriptive pamphlet—Directions for feeding in each sack or package.

**PRICE:** 4 lbs., 25c; 8½ lbs., 50c; 25 lbs., \$1.35; 50 lbs., \$2.50;  
100 lbs., \$4.50.



**ALL PRICES** are subject to market changes without notice.

**BOOKS ON  
POULTRY**  
*See Page 87*



### Portland Seed Company's DIAMOND EGG FOOD A LAYING MASH

*Makes hens lay when eggs are high; keeps poultry healthy.  
Unequaled for feeding young chicks.*

A complete ground food to be fed dry or wet. Starts hens laying and **keeps them at it**. Hastens moult. Puts poultry in prime condition. Makes young fowls grow fast. **No Drugs—No Stimulants**—but a rich, wholesome, nourishing food for growing fowls and hens, encouraging rapid growth and increasing egg production. Can be fed dry or as a mash and is the most successful combination of egg producing elements. **Put up in 100 lb. Bags. Full Weight.**

**PRICE:** Per lb., 6c; 25 lbs., 1.25; 50 lbs., \$2.25; per 100 lb. sack, \$4.00

**Look for the trade mark—be sure it's "Diamond."**

### Diamond Growing Food

**For Quickly Developing Little Chicks Into Big Profit-Paying Broilers**

Our special formula for promoting a rapid, healthy growth, and should be fed after the third or fourth week; nothing else needed; will quickly produce large, plump "Broilers."

**PRICE:** Per lb., 6c; 50 lbs., \$2.35; 100 lbs., \$4.40

**IF YOUR LOCAL DEALER CANNOT SUPPLY YOU WITH OUR  
DIAMOND POULTRY FOODS—WRITE US.**

## Portland Seed Co.'s Diamond Poultry Foods—Continued

### DIAMOND SCRATCH FOOD

**The great general purpose food.** Complete, economical and satisfactory for every feeding requirement from the three-weeks' old chick to mature fowls.

A perfect "working ration" for fowls. Grains, Grit, Shell, Meat, Bone and Charcoal carefully prepared in correct proportion, a veritable "hen's delight." When fed in conjunction with Diamond Egg food a scant allowance scattered in the scratching material in the morning keeps the hens busy hunting for the grains. In the evening feed sufficient that hens may go to roost with crops full.

Diamond Scratch Food can be fed to young chicks at three weeks and has every element necessary to hasten normal growth, build up bone and flesh—a rich nourishing food they greatly relish.

**PRICES:** 1 lb. 5c; 50 lbs. \$2.15; 100 lbs. \$3.90

### DIAMOND PIGEON FOOD

*Made to a Standard*

Is a properly balanced ration, easily assimilated, and gives wonderful results when fed to squabs, or in preparing for exhibition; it is fed by the big squab breeders with the greatest success as a regular working ration, being the most economical and satisfactory food for rapid growth. **Price per lb. 6c; 100 lbs. \$4.75**

### HIGH GRADE MEAT SCRAPS

**DIAMOND BRAND, SPECIAL.** A new meat product, perfectly prepared, fine ground and clean. The highest feeding value yet produced. **Price: 3 lbs. 25c; 50 lbs. \$3.40; 100 lbs. \$6.30**

**GRANULATED.** Clean and free from dust, hide, hair, etc. There is no waste; can be fed like grain if preferred. Every poultry keeper knows the value of this food. **Price: 3 lbs. 25c; 50 lbs. \$3.15; 100 lbs. \$5.85**

### FISH SCRAP

A high grade poultry food, rich in protein relished by fowls—furnishing a clean, healthy meat ration. No chemicals or acids used in its manufacture, and it is free from meal and dust. **Price: 50 lbs \$3.15; 100 lbs. \$5.85**

### FISH MEAL

A fine-ground, pure, sweet fish meal, containing protein—feed as you would meat meal; a rich, wholesome food for poultry. **Price: 50 lbs. \$3.00; 100 lbs. \$5.60**

### GRANULATED BONE

Our "Diamond Brand" is made from selected hard white raw bones, and of a superior quality; an indispensable food for laying hens.

**DIAMOND.** **Price: 10 lbs. 60c; 100 lbs. \$4.00**  
**STANDARD.** **Price: 100 lbs. \$3.50**

### DIAMOND MEAT MEAL

A highly concentrated food. Being cooked meat, dried and ground. Very rich in protein. It should be mixed with the soft food. No hides or tankage in our meat meal, but, as its name implies, meat, cooked, dried and ground; unexcelled for egg-production.

**1 lb. 10c; 10 lbs. 80c; 100 lbs. \$6.30**

### GRIT

Every poultry raiser should keep a supply of grit in each pen. Made in two sizes, chick and hen size. We always send hen size unless otherwise ordered.

### DIAMOND CRYSTAL

**Price: 5 lbs. 10c; 100 lbs. \$1.10**

### BLOOD MEAL

The most highly concentrated egg-producer on the market. To be fed in soft food. Unexcelled as a food for forcing growth of chicks or as an egg food.

**DIAMOND.** **Price: 1 lb. 10c; 10 lbs. 75c; 50 lbs. \$3.25; 100 lbs. \$6.25**

### OYSTER SHELLS, CRUSHED

We offer nice clean stock, free from dust and waste. These should be within reach of your hens at all times. In two sizes: coarse and fine.

**DIAMOND.** **Price: 5 lbs. 15c; 100 lbs. \$1.85**

**WESTERN.** **100 lbs. \$1.70**

**STANDARD POULTRY SHELL.** A very good grade of mixed sea shell—sold by some dealers as oyster shell—but is not so good and has more waste.

**100 lbs. \$1.25**

### BIRD SEED

Not for planting. Special Prices in Quantity

P. S. Co.'s Best Mixed...Per lb. postpaid 45c

Canary, best re-cleaned .Per lb. postpaid 45c

Hemp.....Per lb. postpaid 25c

Millet .....Per lb. postpaid 20c

Rape.....Per lb. postpaid 25c

### TOBACCO DUST

For use in dust baths and nests. A cheap and effective exterminator of lice.

**Price: 1 lb. 15c; 100 lbs. \$7.50**

### ALFALFA MEAL

The best substitute for green food for Winter feeding; helps keep the egg basket full; mixed with the soft feed is good for large or small chicks; endorsed by leading experts.

**Price: 1 lb. 5c; 10 lbs. 40c; 25 lbs. 75c; 50 lbs. \$1.25; 100 lbs. \$2.25**

### POULTRY PEPPER COMPOUND

A good tonic and invigorator; ground.

**Price: 1 lb. 25c; 5 lbs. \$1.15**



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## SPRING RYE AND BROME GRASS

## SPRING RYE, FOR SEED

**BEARDLESS SPRING RYE**—This splendid variety is extremely hardy, yields heavily and is preferred for stock feeding as the small fine beards (about an inch long) mostly drop off in handling.

## Can be planted Fall or Spring.

Single pound, postpaid, 15c—100 lbs \$5.50

**SPRING RYE—Bearded**—We offer a fine stock of true Spring Rye that can be planted in this section any time after the ground can be worked.

Per lb 15c, postpaid—100 lbs \$5.50

Write for prices in larger lots.

## BROMUS INERMIS

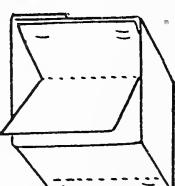
Russian Forage Grass—Awnless Brome Grass

This Bromus, on account of its strong perennial character, and its unusual drouth-resisting powers, is the best grass we have for the semi-arid regions of the Northwest. Grows luxuriantly, is freely eaten dry or green by cattle and yields from 2 to 6 tons to the acre. Sow 25 to 30 pounds per acre. Spring or Fall. Seed weighs 14 pounds per bushel. Our new stock is exceptionally good, having a germination of 90%—and is free from quack grass.

Per lb, postpaid, 35c—100 lbs \$22.00

## BERRY BOXES AND CRATES

Improved  
one-piece  
folding—  
NOTE the  
top STITCH



**TOP STITCHING** the one-piece bottom makes the box open up perfectly. No loss from misfits and breakage as with the old style, and the bottom never drops out. Compare this new box with any box on the market.

Filled Crates, Folding Hallocks, K. D. and Nailed Crates ready for delivery—Write for Prices.

IF YOU ARE GOING TO BUY, DO NOT DELAY, AS STOCK MAY BE SHORT.

# NEW PARCEL POST RATES

**PARCEL POST RATES** are based on **DISTRICTS** and **ZONES**. THE DISTRICT includes the office where mailed and the rural routes therefrom.

A DISTRICT RATE OF 5 CENTS for the first pound and 1 cent for each additional two pounds or fraction thereof up to 70 lbs. (the district weight limit) is charged between points in this district.

First and Second Zones cover a radius of 200 miles from the point of mailing, having a weight limit of 70 pounds and a rate of 5 cents for the first pound and 1 cent for each additional pound, or fraction thereof.

The Third Zone also has a weight limit of 70 pounds.

A weight limit of 50 pounds applies to the fourth, fifth, sixth, seventh and eighth zones with rates increasing with the distance. See table.

**SIZE AND WEIGHT.**—A Parcel Post package may weigh from 4 ounces to 70 pounds for the first, second and third zones—with a 50-pound weight limit for fourth to eighth zones, and must not exceed in size 84 inches in length and girth combined.

Four Ounces or less will be charged for at 1 cent per ounce or fraction thereof, except on Books, Seeds, Plants, Bulbs, etc., which are 1 cent for 2 ounces up to 8 ounces for any distance.

We have catalogued the weight of most items mailable by Parcel Post and by reference to the table you can always figure your postage.

Parcel Post Rates apply to Seeds, Plants and Books weighing over 8 ounces. Other fourth-class matter over 4 ozs. is charged at pound rates	First Pound or Fraction Thereof	Each Additional Pound or Fraction	
Local or District Rate—Portland Office and Rural Routes therefrom.....	\$0.05	½ cent	Weight Limit 70 lbs.
1st Zone } up to and including a radius of 200 miles from 2nd Zone } the point of mailing.....	.05	\$0.01	Weight Limit 70 lbs.
3rd Zone.....	.06	.02	Weight Limit 50 lbs.
4th Zone.....	.07	.04	Weight Limit 50 lbs.
5th Zone.....	.08	.06	Weight Limit 50 lbs.
6th Zone.....	.09	.08	Weight Limit 50 lbs.
7th Zone.....	.11	.10	Weight Limit 50 lbs.
8th Zone.....	.12	.12	Weight Limit 50 lbs.

 **WAR TAX** On Packages requiring 25c Postage add 1c Tax; on 26c to 50c add 2c Tax; over 50c add 1c for every 25c or Fraction thereof. 

The 8th zone rate applies to ALASKA, HAWAII and the PHILIPPINES with 20 lb. weight limit—to MEXICO with 11 lbs.; CUBA, 4 lbs. 6 oz.; PANAMA, 4 lbs. 6 oz. Postage to Canada on 4th class packages of over 4 oz. and NOT EXCEEDING 4 lbs. 6 oz., go at 8th zone rate.

## "DIAMOND QUALITY"

## FERTILIZERS

Ask for our Special Fertilizer Catalog, containing valuable information on the use and application of Fertilizer.

The base of "Diamond" Fertilizers is Bone Meal and Bone Tankage, to which is added the necessary Chemical Elements. No sand, earth or other cheap filler is used. They are of guaranteed analysis, conforming to the standards required by the State Laws.

	POUNDS PER ACRE	FERTILIZER TO USE	WHEN TO APPLY
Apples.....	400 to 600.....	Fruit.....	Fall or early spring.
Asparagus.....	300 to 600.....	Vegetable.....	Spring.
Berry Bushes.....	100 to 200.....	Nitrate of Soda.....	Fall or Winter preferred, or early spring.
Fruit trees and bushes.....	400 to 800.....	Fruit.....	Fall or Winter preferred, or early spring.
Flower beds.....	See Plants, etc.....	Fruit.....	Fall or early spring.
Grapes.....	400 to 800.....	Lawn.....	Apply fall or spring, broadcast.
Grass for lawns.....	400 to 800.....	"Diamond" Plant Food.....	Directions on each package.
House plants.....		Vegetable.....	
Nursery stock.....	325 to 650.....	Fruit.....	Early Spring.
Plants, flowering out-door.....	A teaspoonful to a plant or broadcast.	Lawn.....	Worked in the top soil when cultivating or making beds.
Roses, etc.....	½ to 1 lb. per plant.	Lawn.....	Fall, winter or spring.
Shrubs, trees, etc.....	½ to 3 lbs. per plant.	Lawn.....	Fall, winter or spring.

 Potash Cannot be supplied this year, as stocks must come from Europe.

 For DIAMOND FERTILIZERS See Pages 84-85 

"Diamond Quality"

# Strawberry Plants

Big & Bushy  
Heavy-yielding  
Firm & Well  
Flavored  
Choice  
Seedling  
Heavy Yielding  
Solid  
Delicious  
Berries

"NEW OREGON"

Big Healthy  
Plants  
grown by the most  
approved Methods

PORLAND

SEED

Diamond Quality  
COMPANY